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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:06; Search time 43.3077 Seconds

(without alignments)

71.766 Million cell updates/sec

Title: US-09-787-443A-2

Perfect score: 11

Sequence: 1 AKKERQRKDTQ 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1586107 segs, 282547505 residues

Word size :

Total number of hits satisfying chosen parameters: 22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: A Geneseq 29Jan04:\*

1: geneseqp1980s:\*

2: geneseqp1990s:\*

3: geneseqp2000s:\*

4: geneseqp2001s:\*

5: geneseqp2002s:\*

6: geneseqp2003as:\*

7: genesegp2003bs:\*

8: geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

		용					
esult		Query					
No.	Score	Match	Length	DΒ	ID	Descripti	on
1	11	100.0	11	3	AAY88528	Aay88528	NCAM Iq1
2	11	100.0	11	3	AAY88561	<b>-</b>	_
3	11	100.0	11	5	ABG69330		_
4	4	36.4	11	2	AAR37430	Aar37430	Promega p
5	4	36.4	11	2	AAR96841	Aar96841	Human moe
6	4	36.4	11	2	AAW09653	Aaw09653	Labelled
7	4	36.4	11	2	AAW11749	Aaw11749 '	T-cell re
8	4	36.4	11	2	AAW11750	Aaw11750 '	T-cell re
9	4	36.4	11	2	AAY31014	Aay31014 1	Non-cross
	No. 1 2 3 4 5 6 7 8	No. Score  1 11 2 11 3 11 4 4 5 4 6 4 7 4 8 4	Pesult Query No. Score Match  1 11 100.0 2 11 100.0 3 11 100.0 4 4 36.4 5 4 36.4 6 4 36.4 7 4 36.4 8 4 36.4	Pesult Query No. Score Match Length  1 11 100.0 11 2 11 100.0 11 3 11 100.0 11 4 4 36.4 11 5 4 36.4 11 6 4 36.4 11 7 4 36.4 11 8 4 36.4 11	Pesult Query No. Score Match Length DB  1 11 100.0 11 3 2 11 100.0 11 3 3 11 100.0 11 5 4 4 36.4 11 2 5 4 36.4 11 2 6 4 36.4 11 2 7 4 36.4 11 2 8 4 36.4 11 2	Pesult Query No. Score Match Length DB ID  1 11 100.0 11 3 AAY88528 2 11 100.0 11 3 AAY88561 3 11 100.0 11 5 ABG69330 4 4 36.4 11 2 AAR37430 5 4 36.4 11 2 AAR96841 6 4 36.4 11 2 AAW09653 7 4 36.4 11 2 AAW11749 8 4 36.4 11 2 AAW11750	Pesult Query No. Score Match Length DB ID  Description  1 11 100.0 11 3 AAY88528 2 11 100.0 11 3 AAY88561 3 11 100.0 11 5 ABG69330 4 4 36.4 11 2 AAR37430 5 4 36.4 11 2 AAR96841 6 4 36.4 11 2 AAW09653 7 4 36.4 11 2 AAW11749 8 4 36.4 11 2 AAW11750 Aaw11750

1.0	4	26.4	1.1	~	771100545	7 00545 NOTA T 1
10	4	36.4	11	3	AAY88545	Aay88545 NCAM Ig1
11	4	36.4	11	4	ABP19679	Abp19679 HIV B62 s
12	4	36.4	11	4	ABP17507	Abp17507 HIV B27 s
13	4	36.4	11	4	ABP14260	Abp14260 HIV A02 s
14	4	36.4	11	4	ABP16618	Abp16618 HIV A24 s
15	4	36.4	11	4	ABP24378	Abp24378 HIV A24 m
16	4	36.4	11	4	ABP14259	Abp14259 HIV A02 s
17	4	36.4	11	4	ABP16617	Abp16617 HIV A24 s
18	4	36.4	11	4	ABP16616	Abp16616 HIV A24 s
19	4	36.4	11	5	ABG69345	Abg69345 Human neu
20	4	36.4	11	5	AA018039	Aao18039 Human imm
21	3	27.3	11	1	AAP60142	Aap60142 Type 3 pe
22	3	27.3	11	1	AAP71164	·
	3					Aap71164 Peptide w
23		27.3	11	1	AAP90643	Aap90643 Signal pe
24	3	27.3	11	2	AAR02183	Aar02183 Peptide w
25	3	27.3	11	2	AAR06031	Aar06031 Oligopept
26	3	27.3	11	2	AAR08092	Aar08092 Antifreez
27	3	27.3	11	2	AAR15673	Aar15673 Asn-resid
28	3	27.3	11	2	AAR12168	Aar12168 Neuropept
29	3	27.3	11	2	AAR12171	Aar12171 Neuropept
30	3	27.3	11	2.	AAR12173	Aar12173 Neuropept
31	3	27.3	11	2	AAR22743	Aar22743 Non-A, No
32	3	27.3	11	2		Aar35381 Amphiphil
33	3	27.3	11	2	AAR32351	Aar32351 Human Fac
34	3	27.3	11	2	AAR33973	Aar33973 Amphiphil
35	3	27.3	11	2	AAR31163	Aar31163 C-termina
36	3	27.3	11	2	AAR34248	Aar34248 Mutant HT
37	. 3	27.3	11	2	AAR34240 AAR30442	
	3			2		Aar30442 Synthetic
38		27.3	11		AAR30463	Aar30463 Synthetic
39	3	27.3	11	2	AAR30478	Aar30478 Synthetic
40	. 3	27.3	11	2	AAR41495	Aar41495 TNF inhib
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42	3	27.3	11	2	AAR45132	Aar45132 Amphiphil
43	3	27.3	11	2.	AAR34421	Aar34421 Hepatitis
44	3	27.3	11	2	AAR55163	Aar55163 Fragment
45	3	27.3	11	2	AAR50563	Aar50563 Amphiphil
46	3	27.3	11	2	AAR55987	Aar55987 Ion chann
47	3	27.3	11	2	AAR59065	Aar59065 Cancer tr
48	3	27.3	11	2	AAR56948	Aar56948 Peptide w
49	3	27.3	11	2	AAR50448	Aar50448 Amphiphil
50	3	27.3	. 11	2	AAR51276	Aar51276 Meningoco
51	3	27.3	11	2	AAR51277	Aar51277 Meningoco
52	3	27.3	11	2	AAR82678	Aar82678 V8 fragme
53	3	27.3	11	2	AAW21496	Aaw21496 Hepatitis
54	3	27.3	11	2	AAW21430 AAW21220	
55						Aaw21220 Farnesyl
	3	27.3	11	2	AAR76917	Aar76917 Thymosin
56	3	27.3	11	2	AAR84537	Aar84537 Hepatitis
57	3	27.3	11	2	AAR90259	Aar90259 Ion-chann
58	3	27.3	11	2	AAR91788	Aar91788 Ion-chann
59	3	27.3	11	2	AAR91787	Aar91787 Ion-chann
60	3	27.3	11	2	AAR87902	Aar87902 Neuropept
61	3	27.3	11	2	AAW49555	Aaw49555 Human leu
62	3	27.3	11	2	AAR96835	Aar96835 Human neu
63	3	27.3	11	2	AAR85318	Aar85318 Human ret
64	3	27.3	11	2	AAW18499	Aaw18499 Amino-ter
65	3	27.3	11	2	AAW24438	Aaw24438 Nucleic a
66	3	27.3	11	2	AAW34642	Aaw34642 Control p
	•			_		Time To The Confect of P

67	3	27.3	11	2	AAW09909	Aaw09909	Prostate
68	3	27.3	11	2	AAW10140	Aaw10140	Hepatitis
69	3	27.3	11	2	AAW62116	Aaw62116	Human MDM
70	3	27.3	11	2	AAW66523	Aaw66523	Amphiphil
71	3	27.3	11	2	AAW80589	Aaw80589	src-famil
72	3	27.3	11	2	AAW64653	Aaw64653	Synthetic
73	3	27.3	11	2	AAW51825	Aaw51825	Peptide Y
74	3	27.3	11	2	AAW84029	Aaw84029	Human CYP
75	3	27.3	11	2	AAW84023	Aaw84023	Human CYP
76	3	27.3	11	2	AAW84026	Aaw84026	Human CYP
77	3	27.3	11	2	AAW50263	Aaw50263	HIV-1 tat
78	3	27.3	11	2	AAY30700	Aay30700	Apo-B100
79	3	27.3	11	2	AAY30698	Aay30698	Apo-B100
80	3	27.3	11	2	AAW72988	Aaw72988	Bovine be
81	3	27.3	11	2	AAY05150	Aay05150	HIV Tat p
82	3	27.3	11	2	AAY39666	Aay39666	Tat-inhib
83	3	27.3	11	2	AAY39664	Aay39664	Tat-inhib
84	3	27.3	11	2	AAY39667	Aay39667	Tat-inhib
85	3	27.3	11	2	AAY39662	Aay39662	Tat-inhib
86	3	27.3	11	2	AAY39663	Aay39663	Tat-inhib
87	3	27.3	11	2	AAY39665	Aay39665	Tat-inhib
88	3	27.3	11	2	AAY39669		Tat-inhib
89	3	27.3	11	2	AAW97477	Aaw97477	Antigenic
90	3	27.3	11	2	AAY05415	Aay05415	Tat pepti
91	3	27.3	11	2	AAW81004	Aaw81004	S. cerevi
92	3	27.3	11	2	AAY05440	Aay05440	Bronchodi
93	3	27.3	11	2	AAY25084	Aay25084	TAT domai
94	3	27.3	11	2	AAY25075	. Aay25075	TAT trans
95	3	27.3	11	2	AAY10761	Aay10761	Peptide u
96	.3	27.3	11	2	AAY10750	Aay10750	Peptide u
97	3	27.3	11	2	AAY10762		Peptide u
98	3	27.3	11	3	AAY66823		T cell an
99	3	27.3	11	3 .	AAB27088	Aab27088	Beta-cate
100	3	27.3	11	3	AAB16472	Aab16472	Linear pe

## ALIGNMENTS

```
RESULT 1
AAY88528
ID
    AAY88528 standard; peptide; 11 AA.
XX
AC
    AAY88528;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
    NCAM Ig1 binding peptide D3.
XX
KW
    NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
    neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
    Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
    treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
    Synthetic.
XX
```

```
XX
PD
     06-APR-2000.
XX
     23-SEP-1999;
                     99WO-DK000500.
ΡF
XX
PR
     29-SEP-1998;
                     98DK-00001232.
     29-APR-1999;
                     99DK-00000592.
PR
XX
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
PA
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PA
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PA
PΑ
     (SORO/) SOROKA V.
     (RALE/) RALETS I.
PΑ
PΑ
     (BERE/) BEREZIN V.
XX
```

WO200018801-A2.

PN

PΙ

PI XX DR

XX PT

PT

PΤ

XX PS

XX

CC

CC XX Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH; Poulsen FM, Soroka V, Ralets I, Berezin V;

WPI; 2000-293111/25.

Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and Parkinson's diseases.

Claim 20; Page 82; 119pp; English.

Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, while the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin domains (Ig domains). The Ig domains are numbered 1 to 5 from the Nterminal. The present sequence represents a peptide which binds to the NCAM Iql domain. The peptide can be used in a compound which binds to NCAM-Ig1/Ig2 domains, and is capable of stimulating or promoting neurite outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions resulting from a stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission and schizophrenia. Conditions affecting the muscles may also be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or traumatic atrophic muscle disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also be treated using the compound. The compound is used in a prosthetic nerve guide, and also to stimulate the ability to learn, and to stimulate the memory of a subject

```
Sequence 11 AA;
  Query Match
                          100.0%; Score 11; DB 3; Length 11;
                          100.0%; Pred. No. 2.3e-05;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
  Matches
            11; Conservative
                                                   0;
                                                        Indels
                                                                  0; Gaps
            1 AKKERQRKDTQ 11
Qу
              111111111
Db
            1 AKKERQRKDTQ 11
RESULT 2
AAY88561
     AAY88561 standard; peptide; 11 AA.
XX
AC
     AAY88561;
XX
DT
     07-AUG-2000 (first entry)
XX
DE
     NCAM Ig1 binding peptide D3 used as a control peptide.
XX
KW
     NCAM; neural cell adhesion molecule; Iq1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve quide; treatment; nervous system.
XX
OS
     Synthetic.
XX
PN
     WO200018801-A2.
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
PR
     29-SEP-1998;
                    98DK-00001232.
PR
     29-APR-1999;
                    99DK-00000592.
XX
PA
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
     (HOLM/) HOLM A.
PA
     (OLSE/) OLSEN M.
PA
PA
     (OSTE/) OSTERGAARD S.
PA
     (JENS/) JENSEN P H.
     (POUL/) POULSEN F M.
PA
     (SORO/) SOROKA V.
PA
     (RALE/) RALETS I.
PA
PA
     (BERE/) BEREZIN V.
XX
PI
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
XX.
DR
     WPI; 2000-293111/25.
XX
     Compositions that bind neural cell adhesion molecules useful for treating
PT
     disorders of the nervous system and muscles e.g. Alzheimer's and
PT
```

SQ

PT

Parkinson's diseases.

```
XX
PS
     Example 5; Fig 7; 119pp; English.
XX
CC
     Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
     NCAM is found in three forms, two of which are transmembrane forms, while
CC
     the third is attached via a lipid anchor to the cell membrane. All three
     NCAM forms have an extracellular structure consisting five immunoglobulin
CC
CC
     domains (Ig domains). The Ig domains are numbered 1 to 5 from the N-
CC
     terminal. The invention relates to a compound containing a peptide which
CC
     binds to the NCAM Iq1 domain. The compound binds to NCAM-Iq1/Iq2 domains,
CC
     and is capable of stimulating or promoting neurite outgrowth from NCAM
CC
     presenting cells, and is also capable of promoting the proliferation of
CC
     NCAM presenting cells. The present sequence represents a control peptide
     used in the identification of those binding peptides which can be used in
CC
CC
     the compound. The compound may be used in the treatment of normal,
CC
     degenerated or damaged NCAM presenting cells. The compound may in
     particular be used to treat diseases of the central and peripheral
CC
CC
     nervous systems such as post operative nerve damage, traumatic nerve
CC
     damage, impaired myelination of nerve fibres, conditions resulting from a
CC
     stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis,
CC
     nerve degeneration associated with diabetes mellitus, disorders affecting
CC
     the circadian clock or neuro-muscular transmission and schizophrenia.
CC
     Conditions affecting the muscles may also be treated with the compound,
CC
     such as conditions associated with impaired function of neuromuscular
CC
     connections (e.g. genetic or traumatic shock or traumatic atrophic muscle
CC
     disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus
CC
     types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also
CC
     be treated using the compound. The compound is used in a prosthetic nerve
CC
     guide, and also to stimulate the ability to learn, and to stimulate the
CC
     memory of a subject
XX
SQ
     Sequence 11 AA;
  Query Match
                          100.0%; Score 11; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.3e-05;
            11; Conservative
                                 0; Mismatches
                                                   0; Indels
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                                                                     Gaps
                                                                             0;
Qy
            1 AKKERQRKDTQ 11
              Db
            1 AKKERQRKDTQ 11
RESULT 3
ABG69330
    ABG69330 standard; peptide; 11 AA.
XX
AC
    ABG69330;
XX
DT
     21-OCT-2002
                 (first entry)
XX
DΕ
     Human neural cell adhesion molecule (NCAM) peptide #2.
XX
KW
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
KW
     acute myocardial infarction; central nervous system disorder; stroke;
KW
     peripheral nervous system disorder; postoperative nerve damage;
KW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
    postischaemic damage; multiinfarct dementia; multiple sclerosis;
ΚW
```

```
nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
KW
KW
     Alzheimer's disease; Parkinson's disease;
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
KW
     nephrosis.
XX
OS
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XX
     W0200247719-A2.
PN
XX
PD
     20-JUN-2002.
XX
PF
     12-DEC-2001; 2001WO-DK000822.
XX
     12-DEC-2000; 2000DK-00001863.
PR
XX
PA
     (ENKA-) ENKAM PHARM AS.
XX
_{
m PI}
     Bock E, Berezin V, Kohler LB;
XX
DR
     WPI; 2002-583473/62.
XX
PT
     Use of a compound comprising a peptide of neural cell adhesion molecule,
PT
     in the preparation of medicament for preventing death of cells presenting
     NCAM or NCAM ligand and treating central nervous system diseases.
PT
XX
PS
     Claim 26; Page 39; 57pp; English.
XX
CC
     The invention relates to use of a compound (I) comprising a peptide which
CC
     comprises at least 5 contiguous amino acid residues of a sequence of the
CC
     neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,
CC
     for the preparation of a medicament for preventing death of cells
CC
     presenting the NCAM or an NCAM ligand. (I) is useful in the preparation
CC
     of a medicament for preventing death of cells presenting the NCAM or an
CC
    NCAM ligand. The medicament is for the stimulation of the survival of
CC
     heart muscle cells, such as survival after acute myocardial infarction.
CC
    The medicament is for the treatment of diseases or conditions of the
CC
     central and peripheral nervous system, such as postoperative nerve
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
CC
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
    Huntington's disease. The medicament is for the treatment of diseases or
CC
     conditions of the muscles including conditions with impaired function of
CC
    neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
    disorders, and for the treatment of diseases of conditions of various
CC
    organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
     ABG69352 represent human NCAM peptides of the invention
XX
SQ
     Sequence 11 AA;
 Query Match
                          100.0%; Score 11; DB 5; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e-05;
 Matches 11; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
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Query Match

Best Local Similarity

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RESULT 4
AAR37430
     AAR37430 standard; peptide; 11 AA.
XX
AC
     AAR37430;
XX
DT
     25-MAR-2003
                  (revised)
DT
     08-SEP-1993
                  (first entry)
XX
DΕ
     Promega peptide 5.
XX
KW
     Modified peptide substrate; non-radioactive; detection; dansyl;
KW
     sulphorhodamine 101; lissamine; rhodamine; enzymes; phosphatases;
KW
     protein kinases; proteases.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "detection tag= lissamine, Rhodamine"
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PN
    WO9310461-A1.
XX
PD
     27-MAY-1993.
XX
PF
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                    92WO-US009595.
XX
PR
     12-NOV-1991;
                    91US-00791928.
XX
PΑ
     (PROM-) PROMEGA CORP.
XX
PΙ
     Shultz JW, White DH;
XX
DR
    WPI; 1993-182698/22.
XX
     Quantitating presence or activity of enzyme - by incubating with modified
PT
    peptide substrate and measuring the modified peptide prod.
PT
XX
PS
    Claim 24; Page 27; 103pp; English.
XX
CC
     Promega peptide 5 is tagged with dansyl at residue 1 and may be used in a
CC
     novel non-radioactive method of quantitating the presence or activity of
CC
     an enzyme. The method can be used for rapid, specific and highly
CC
     sensitive detection of enzymes such as protein kinases, phosphatases and
CC
    proteases, esp. in this case protein kinase C. They can be used to study
CC
     enzyme function in metabolism and in diagnosis of disease. They also
CC
     allow quantitative determ. of the enzyme's activity. See also AAR37426-
CC
     36. (Updated on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
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36.4%; Score 4; DB 2; Length 11;

100.0%; Pred. No. 8.2e+02;

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Matches
            4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 RQRK 8
              1111
            3 RQRK 6
Db
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AAR96841
ID
     AAR96841 standard; peptide; 11 AA.
XX
AC
     AAR96841;
XX
DT
     29-NOV-1996 (first entry)
XX
DE
     Human moesin fragment, homologous to Neisseria Iga-alpha2.
XX
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
KW
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
KW
KW
     human small nuclear ribonucleoprotein-associated protein; Rsmb;
KW
     Neisseria gonorrhoeae; R16.
XX
OS
     Homo sapiens.
XX
FH
     Key
                     Location/Qualifiers
FT
     Region
                     1
FT
                     /note= "identical to corresponding residue in Neisseria
FT
                     gonorrhoeae Iga-alpha2"
FT
     Region
                     6. .11
FT
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
                     Iga-alpha2"
XX
     WO9609395-A2.
ΡN
XX
PD
     28-MAR-1996.
XX
                    95WO-EP003726.
PF
     21-SEP-1995;
XX
PR
     21-SEP-1994;
                    94DE-04433708.
XX
PA
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
XX
PI
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PI
     Oetzelberger KB;
XX
DR
     WPI; 1996-188456/19.
XX
PT
     Medicaments for treating auto-immune or viral diseases - contg.
PT
     substances interfering with bacterial poly:protein function.
XX
PS
     Claim 32; Fig 2; 117pp; German.
XX
CC
     The present sequence from human moesin has homology to a cleavage product
CC
     from the Iga-alpha2 domain of the precursor of IgA-protease polyprotein
     (IPP) of Neisseria gonorrhoeae strain R16. The Neisseria IPP has been
CC
CC
     implicated in rheumatoid arthritis and other auto-immune diseases. The
CC
     polyprotein also activates proviruses, including HIV. Substances which
```

```
CC
     interfere with the function of IPP from Neisseria will be useful for
CC
     treating associated autoimmune diseases and viral infections. Peptides
CC
     comprising the homology region sequences, whether from Neisseria or from
     humans, are claimed
CC
XX
     Sequence 11 AA;
SQ
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
  Matches
             4; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            3 KERO 6
Qy
              \perp
Db
            2 KERQ 5
RESULT 6
AAW09653
     AAW09653 standard; peptide; 11 AA.
XX
AC
     AAW09653;
XX
DT
     25-MAR-2003
                  (revised)
DT
     20-MAY-1997
                  (first entry)
XX
DE
     Labelled peptide substrate used in enzyme activity assay.
XX
KW
     Enzyme activity; assay; measurement; label; rhodamine; dansyl;
KW
     non-radioactive; electrophoretic separation; protein kinase; protease;
KW
     phosphatase.
XX
os
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "labelled with rhodamine B detection tag"
XX
ΡN
     US5580747-A.
XX
PD
     03-DEC-1996.
XX
PF
     21-JAN-1994;
                    94US-00185448.
XX
PR
     12-NOV-1991;
                    91US-00791928.
XX
     (PROM-) PROMEGA CORP.
PA
XX
PΙ
     White DH,
                Shultz JW;
XX
DR
     WPI; 1997-033568/03.
XX
     Non: radioactive assay for measuring enzyme activity - involving
PT
     electrophoretic sepn. of labelled cleavage prod. from labelled peptide
PT
PT
     substrate.
XX
PS
     Claim 5; Col 39-40; 35pp; English.
XX
```

```
CC
     AAW09653 is a peptide substrate used in a non-radioactive assay for
    measuring enzyme activity. The assay comprises incubating the enzyme with
CC
     the labelled peptide substrate to form a labelled peptide product;
CC
     separating the product from the substrate by agarose gel electrophoresis
CC
     and measuring the amount of product by detecting the label by
CC
     fluorescence or chemiluminescence. The assay can be performed rapidly and
CC
     with great sensitivity. This peptide is especially for determining
CC
    protein kinase C activity, e.g. to study its function in metabolism or to
CC
     screen for potential inhibitors. (Updated on 25-MAR-2003 to correct PF
CC
CC
     field.)
XX
SQ
    Sequence 11 AA;
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.2e+02;
  Best Local Similarity
                              0; Mismatches
                                                 0; Indels
                                                                              0;
  Matches
            4; Conservative
                                                                 0; Gaps
            5 RQRK 8
Qу
              1111
            3 RQRK 6
Db
RESULT 7
AAW11749
     AAW11749 standard; peptide; 11 AA.
ID
XX
AC
    AAW11749;
XX
DT
     04-NOV-1997 (first entry)
XX
DE
     T-cell receptor peptide V(beta) 5.2 (49-59) F.
XX
KW
     T-cell receptor; TCR; V(beta) 5.2; multiple sclerosis;
KW
     rheumatoid arthritis; myasthenia gravis; encephalomyelitis; diabetes;
KW
     inflammatory bowel disease; systemic lupus erythematosus; thyroiditis;
KW
     therapy; diagnosis; vaccine.
XX
OS
     Synthetic.
XX
PN
     W09640778-A1.
XX
PD
    19-DEC-1996.
XX
PF
     06-JUN-1996;
                    96WO-US009423.
XX
PR
     07-JUN-1995;
                    95US-00476405.
XX
PA
     (CONN-) CONNECTIVE THERAPEUTICS INC.
XX
PΙ
    Vandenbark AA;
XX
DR
     WPI; 1997-099923/09.
XX
     T cell receptor peptide derived from V(beta)-5 family - useful for
PT
     treating e.g. multiple sclerosis, myasthenia gravis, diabetes, etc.
PT
XX
PS
     Claim 9; Page 42; 54pp; English.
```

```
XX
CC
     This sequence is a synthetic peptide based on amino acid residues 49-59
     of the V(beta)5.2 region (see AAW11767) of human T cell receptor (TCR).
CC
CC
     It is a specifically preferred peptide for use in a claimed method for
CC
     the treatment, prevention or suppression of a T-cell mediated disease
CC
     such as multiple sclerosis, rheumatoid arthritis, myasthenia gravis,
CC
     encephalomyelitis, thyroiditis, diabetes, inflammatory bowel disease or
CC
     systemic lupus erythematosus. Claimed TCR peptides (AAW11741-65) are
CC
     derived from the V(beta)5 family, or are functional derivatives of
CC
     V(beta)5 peptides
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
                               0; Mismatches
  Matches
             4; Conservative
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            4 ERQR 7
Qу
              1111
Db
            7 ERQR 10
RESULT 8
AAW11750
ID
     AAW11750 standard; peptide; 11 AA.
XX
AC
     AAW11750;
XX
DT
     04-NOV-1997 (first entry)
XX
DE
     T-cell receptor peptide V(beta) 5.2 (49-59) FV.
XX
KW
     T-cell receptor; TCR; V(beta)5.2; multiple sclerosis;
KW
     rheumatoid arthritis; myasthenia gravis; encephalomyelitis; diabetes;
KW
     inflammatory bowel disease; systemic lupus erythematosus; thyroiditis;
KW
     therapy; diagnosis; vaccine.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Misc-difference 2
FT
                     /note= "residue 2 is Tyr in V(beta)5.2 (49-59)F"
XX
PN
     W09640778-A1.
XX
     19-DEC-1996.
PD
XX
PF
     06-JUN-1996;
                    96WO-US009423.
XX
PR
     07-JUN-1995;
                    95US-00476405.
XX
PA
     (CONN-) CONNECTIVE THERAPEUTICS INC.
XX
     Vandenbark AA;
PΙ
XX
DR
     WPI; 1997-099923/09.
XX
```

```
PT
     T cell receptor peptide derived from V(beta)-5 family - useful for
PT
     treating e.g. multiple sclerosis, myasthenia gravis, diabetes, etc.
XX
PS
     Claim 9; Page 42; 54pp; English.
XX
CC
     This sequence is a synthetic peptide based on amino acid residues 49-59
CC
     of the V(beta) 5.2 region (see AAW11767) of human T cell receptor (TCR).
CC
     It is a specifically preferred peptide for use in a claimed method for
CC
     the treatment, prevention or suppression of a T-cell mediated disease
CC
     such as multiple sclerosis, rheumatoid arthritis, myasthenia gravis,
CC
     encephalomyelitis, thyroiditis, diabetes, inflammatory bowel disease or
CC
     systemic lupus erythematosus. Claimed TCR peptides (AAW11741-65) are
CC
     derived from the V(beta)5 family, or are functional derivatives of
CC
     V(beta)5 peptides
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
  Matches
             4; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0:
            4 ERQR 7
Qу
              7 EROR 10
RESULT 9
AAY31014
ID
     AAY31014 standard; peptide; 11 AA.
XX
AC
     AAY31014;
XX
DT
     21-OCT-1999 (first entry)
XX
DE
     Non-crosslinked protein particle peptide 63.
XX
KW
     Non-crosslinked protein particle; diagnostic; therapy; monodisperse;
KW
     albumin; haemoglobin; nanometer; micrometer; clearance.
XX
OS
     Synthetic.
XX
ΡN
     US5945033-A.
XX
PD
     31-AUG-1999.
XX
PF
     12-NOV-1996;
                    96US-00747137.
XX
PR
                    91US-00641720.
     15-JAN-1991;
PR
     13-OCT-1992;
                    92US-00959560.
PR
     01-JUN-1993:
                    93US-00069831.
                    94US-00212546.
PR
     14-MAR-1994;
XX
PA
     (HEMO-) HEMOSPHERE INC.
XX
PΙ
     Yen RCK;
XX
DR
     WPI; 1999-508153/42.
```

```
PT
     Non-crosslinked protein particles for therapeutic and diagnostic use.
XX
PS
     Example 22; Col 77-78; 65pp; English.
XX
CC
     This invention describes a novel aqueous suspension of monodisperse
CC
     particles on non-crosslinked, non-denatured albumin (50-5000 nm) which is
CC
     stable against dissolving upon dilution with an alcohol-free aqueous
CC
     medium. The method involves (a) forming an aqueous solution containing
     albumin and hemoglobin and (b) treating the aqueous solution with an
CC
CC
     alcohol to cause the solution to become turbid. The particles are useful
CC
     as agents for in vivo administration, either of their own administration
CC
     or as a vehicle for other therapeutic or diagnostic agents. The method
CC
     permits the formation of albumin and hemoglobin particles in the
CC
     nanometer and micrometer size range, in a form closer to their natural
CC
     form than the forms of the prior art. The particles therefore constitute
CC
     a more closely controlled agent for in vivo administration, with greater
CC
     ease of clearance from the body after their period of usefulness.
CC
     AAY30952-Y31135 represent peptides used in the method of the invention
XX
SO
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
             4; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                              0;
                                                                      Gaps
            5 RQRK 8
Qy
              1111
            3 RORK 6
RESULT 10
AAY88545
     AAY88545 standard; peptide; 11 AA.
XX
AC
     AAY88545;
XX
DT
     07-AUG-2000
                  (first entry)
XX
DE
     NCAM Ig1 binding peptide #17.
XX
KW
     NCAM; neural cell adhesion molecule; Ig1; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
XX
OS
     Synthetic.
XX
PN
     WO200018801-A2.
XX
PD
     06-APR-2000.
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
                    98DK-00001232.
PR
     29-SEP-1998;
PR
     29-APR-1999;
                    99DK-00000592.
```

XX

```
XX
PA
     (RONN/) RONN L C B.
     (BOCK/) BOCK E.
PA
PΑ
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
PΑ
     (OSTE/) OSTERGAARD S.
     (JENS/) JENSEN P H.
PA
PΑ
     (POUL/) POULSEN F M.
PΑ
     (SORO/) SOROKA V.
     (RALE/) RALETS I.
PΑ
PΑ
     (BERE/) BEREZIN V.
XX
PI
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PI
     Poulsen FM, Soroka V, Ralets I, Berezin V;
XX
DR
    WPI; 2000-293111/25.
XX
PT
     Compositions that bind neural cell adhesion molecules useful for treating
PT
    disorders of the nervous system and muscles e.g. Alzheimer's and
PT
     Parkinson's diseases.
XX
PS
     Example 4; Page 25; 119pp; English.
XX
CC
    Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule.
CC
    NCAM is found in three forms, two of which are transmembrane forms, while
CC
    the third is attached via a lipid anchor to the cell membrane. All three
CC
    NCAM forms have an extracellular structure consisting five immunoglobulin
CC
    domains (Iq domains). The Iq domains are numbered 1 to 5 from the N-
    terminal. The present sequence represents a peptide which binds to the
CC
CC
    NCAM Igl domain. The peptide can be used in a compound which binds to
CC
    NCAM-Ig1/Ig2 domains, and is capable of stimulating or promoting neurite
CC
    outgrowth from NCAM presenting cells, and is also capable of promoting
CC
    the proliferation of NCAM presenting cells. The compound may be used in
CC
    the treatment of normal, degenerated or damaged NCAM presenting cells.
CC
    The compound may in particular be used to treat diseases of the central
CC
    and peripheral nervous systems such as post operative nerve damage,
CC
    traumatic nerve damage, impaired myelination of nerve fibres, conditions
CC
     resulting from a stroke, Parkinson's disease, Alzheimer's disease,
CC
    dementias, sclerosis, nerve degeneration associated with diabetes
CC
    mellitus, disorders affecting the circadian clock or neuro-muscular
CC
    transmission and schizophrenia. Conditions affecting the muscles may also
CC
    be treated with the compound, such as conditions associated with impaired
CC
    function of neuromuscular connections (e.g. genetic or traumatic shock or
CC
    traumatic atrophic muscle disorders). Conditions of the gonads, pancreas
CC
     (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart,
    liver and bowel may also be treated using the compound. The compound is
CC
CC
    used in a prosthetic nerve quide, and also to stimulate the ability to
CC
    learn, and to stimulate the memory of a subject
XX
SO
    Sequence 11 AA;
                          36.4%; Score 4; DB 3; Length 11;
 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
 Matches
            4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
```

```
RESULT 11
ABP19679
     ABP19679 standard; peptide; 11 AA.
ID
XX
     ABP19679;
AC
XX
DT
     11-SEP-2003
                  (revised)
     15-JUL-2002
                 (first entry)
DT
XX
     HIV B62 super motif vpu peptide #17.
DE
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
     Human immunodeficiency virus 1.
OS
XX
     WO200124810-A1.
PN
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
     (EPIM-) EPIMMUNE INC.
PΑ
XX
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Sette A,
               Sidney J,
PΙ
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
     Claim 32; Page 272; 448pp; English.
PS
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
```

```
immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 8.2e+02;
  Best Local Similarity
                                                                              0;
            4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
 Matches
            5 RORK 8
Qу
              1111
            3 RORK 6
Db
RESULT 12
ABP17507
     ABP17507 standard; peptide; 11 AA.
ID
XX
AC
     ABP17507;
XX
DT
     11-SEP-2003 (revised)
                 (first entry)
DT
     15-JUL-2002
XX
    HIV B27 super motif rev peptide #18.
DE
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
ΚW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD, Chesnut R;
PI
     Sette A, Sidney J,
                          Kubo RT, Grey HM;
     Baker DM, Celis E,
PI
XX
DR
     WPI; 2001-354887/37.
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
     Claim 32; Page 227; 448pp; English.
PS
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
```

CC

```
be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
                          100.0%; Pred. No. 8.2e+02;
  Best Local Similarity
             4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            4 EROR 7
Qy
              I \cup I
Dh
            6 EROR 9
RESULT 13
ABP14260
ID
     ABP14260 standard; peptide; 11 AA.
XX
AC
     ABP14260;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DE
     HIV A02 super motif vpu peptide #43.
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
ΡN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
PΑ
     (EPIM-) EPIMMUNE INC.
```

ABP25397). (I) has virucide activity and can be used in vaccines. (I) may

CC

```
XX
               Sidney J,
PI
                          Southwood S, Livingston BD, Chesnut R;
     Sette A,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
     Claim 32; Page 160; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4;
                                            DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
  Matches
             4; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            5 RQRK 8
Qу
              Db
            3 RQRK 6
RESULT 14
ABP16618
ID
     ABP16618 standard; peptide; 11 AA.
XX
AC
    ABP16618;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                  (first entry)
XX
DE
    HIV A24 super motif vpu peptide #33.
XX
KW
    HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
```

```
vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
     WO200124810-A1.
PN
XX
     12-APR-2001.
PD
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
ΡI
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
     Baker DM, Celis E,
PI
                          Kubo RT, Grey HM;
XX
DR
     WPI; 2001-354887/37.
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 208; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SO
     Sequence 11 AA;
 Query Match
                          36.4%;
                                  Score 4; DB 4; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
             4; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
            5 RORK 8
Qу
              I \cup I
Db
            3 RQRK 6
```

```
RESULT 15
ABP24378
     ABP24378 standard; peptide; 11 AA.
ID
XX
AC
     ABP24378;
XX
DT
     11-SEP-2003 (revised)
     15-JUL-2002 (first entry)
DT
XX
    HIV A24 motif vpu peptide #9.
DΕ
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
OS
     Human immunodeficiency virus 1.
XX
     WO200124810-A1.
PN
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
PI
     Sette A, Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
                          Kubo RT, Grey HM;
PΙ
     Baker DM, Celis E,
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
     Claim 32; Page 368; 448pp; English.
PS
XX
CC
     The present invention describes a composition (I) comprising a prepared
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
     allowing for immune escape due to mutations. The groups for inclusion in
CC
CC
     an group-based vaccine may be selected from conserved regions of viral or
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
     combine selected groups (CTL and HTL), and further, to modify the
CC
CC
     composition of the groups, achieving, for example, enhanced
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
```

```
is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
SQ
     Sequence 11 AA;
                          36.4%; Score 4; DB 4; Length 11;
 Query Match
                          100.0%; Pred. No. 8.2e+02;
 Best Local Similarity
                                                                             0;
                              0; Mismatches
                                                  0; Indels
            4; Conservative
                                                                 0; Gaps
            5 RORK 8
QУ
              7 RORK 10
Db
RESULT 16
ABP14259
    ABP14259 standard; peptide; 11 AA.
ID
XX
AC
     ABP14259;
XX
DT
     11-SEP-2003
                  (revised)
DT
     15-JUL-2002
                 (first entry)
XX
     HIV A02 super motif vpu peptide #42.
DΕ
XX
KW
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
     vaccine; HIV infection; immunisation; virucide.
KW
XX
OS
     Human immunodeficiency virus 1.
XX
PN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PA
     (EPIM-) EPIMMUNE INC.
XX
                          Southwood S, Livingston BD, Chesnut R;
PΙ
     Sette A,
               Sidney J,
PI
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
XX
DR
    WPI; 2001-354887/37.
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
PS
     Claim 32; Page 160; 448pp; English.
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
```

appropriate, for the target disease. Similar engineering of the response

CC

```
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
CC
     tumour-associated antigens, which therefore reduces the likelihood of
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
CC
CC
     immunogenicity. Accordingly, the immune response can be modulated, as
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
  Matches
             4; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0:
                                                                      Gaps
                                                                              0;
            5 RORK 8
Qу
              ++++
            4 RQRK 7
Db
RESULT 17
ABP16617
     ABP16617 standard; peptide; 11 AA.
XX
AC
     ABP16617;
XX
DΤ
     11-SEP-2003 (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DE
     HIV A24 super motif vpu peptide #32.
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antigen;
KW
KW
     vaccine; HIV infection; immunisation; virucide.
XX
OS
     Human immunodeficiency virus 1.
XX
ΡN
     WO200124810-A1.
XX
PD
     12-APR-2001.
XX
PF
     05-OCT-2000; 2000WO-US027766.
XX
PR
     05-OCT-1999;
                    99US-00412863.
XX
PΑ
     (EPIM-) EPIMMUNE INC.
XX
```

```
Sette A,
               Sidney J,
                          Southwood S, Livingston BD, Chesnut R;
PΙ
    Baker DM, Celis E,
                          Kubo RT, Grey HM;
PΙ
XX
     WPI; 2001-354887/37.
DR
XX
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
PT
XX
PS
     Claim 32; Page 208; 448pp; English.
XX
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
CC
     compositions. There is evidence that the immune response to whole
    antigens is directed largely toward variable regions of the antigen,
CC
    allowing for immune escape due to mutations. The groups for inclusion in
CC
    an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
    immunogenicity. Accordingly, the immune response can be modulated, as
CC
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
CC
     represent peptide sequences used in the exemplification of the present
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
     Sequence 11 AA;
SQ
 Query Match
                          36.4%;
                                  Score 4; DB 4; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
                                                                             0;
 Matches
             4; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
            5 RQRK 8
Qу
              1111
Db
            4 RQRK 7
RESULT 18
ABP16616
     ABP16616 standard; peptide; 11 AA.
XX
AC
    ABP16616;
XX
DT
     11-SEP-2003
                 (revised)
DT
     15-JUL-2002
                 (first entry)
XX
DE
     HIV A24 super motif vpu peptide #31.
XX
     HIV; HIV-1; human immunodeficiency virus; env; pol; gag; nef; vpr; vpu;
KW
     vif; tat; cytotoxic T lymphocyte; CTL; immune response; epitope; antiqen;
KW
```

```
XX
OS
     Human immunodeficiency virus 1.
XX
     WO200124810-A1.
PN
XX
PD
     12-APR-2001.
XX
     05-OCT-2000; 2000WO-US027766.
PF
XX
     05-OCT-1999;
                    99US-00412863.
PR
XX
     (EPIM-) EPIMMUNE INC.
PA
XX
                          Southwood S, Livingston BD, Chesnut R;
PI
     Sette A, Sidney J,
     Baker DM, Celis E,
                          Kubo RT, Grey HM;
PI
XX
     WPI; 2001-354887/37.
DR
XX
PT
     Vaccine compositions comprising human immunodeficiency virus-1 (HIV-1)
PT
     peptide groups, useful for vaccinating against HIV-1.
XX
PS
     Claim 32; Page 208; 448pp; English.
XX
CC
     The present invention describes a composition (I) comprising a prepared
CC
     human immunodeficiency virus-1 (HIV-1) group comprising an amino acid
CC
     sequence selected from 51 defined amino acid sequences (ABL25347 to
CC
     ABP25397). (I) has virucide activity and can be used in vaccines. (I) may
CC
     be used for immunising subjects against HIV-1 infections. The use of
CC
     group-based vaccines has several advantages over traditional vaccines,
CC
     particularly when compared to the use of whole antigens in vaccine
CC
     compositions. There is evidence that the immune response to whole
CC
     antigens is directed largely toward variable regions of the antigen,
CC
     allowing for immune escape due to mutations. The groups for inclusion in
CC
     an group-based vaccine may be selected from conserved regions of viral or
CC
     tumour-associated antigens, which therefore reduces the likelihood of
CC
     escape mutants. Furthermore, immunosuppressive groups that may be present
CC
     in whole antigens can be avoided with the use of group-based vaccines. An
CC
     additional advantage of an group-based vaccine approach is the ability to
CC
     combine selected groups (CTL and HTL), and further, to modify the
CC
     composition of the groups, achieving, for example, enhanced
     immunogenicity. Accordingly, the immune response can be modulated, as
CÇ
CC
     appropriate, for the target disease. Similar engineering of the response
CC
     is not possible with traditional approaches. ABP11501 to ABP25412
     represent peptide sequences used in the exemplification of the present
CC
CC
     invention. (Updated on 11-SEP-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.2e+02;
             4; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                              0;
Qу
            5 RQRK 8
              1111
            7 RQRK 10
Db
```

vaccine; HIV infection; immunisation; virucide.

KW

```
RESULT 19
ABG69345
     ABG69345 standard; peptide; 11 AA.
TD
XX
     ABG69345;
AC
XX
DT
     21-OCT-2002 (first entry)
XX
DE
     Human neural cell adhesion molecule (NCAM) peptide #17.
XX
KW
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
KW
     acute myocardial infarction; central nervous system disorder; stroke;
     peripheral nervous system disorder; postoperative nerve damage;
KW
KW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
KW
     postischaemic damage; multiinfarct dementia; multiple sclerosis;
KW
     nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
     Alzheimer's disease; Parkinson's disease;
KW
KW
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
     nephrosis.
XX
OS
     Homo sapiens.
XX
PN
     WO200247719-A2.
XX
PD
     20-JUN-2002.
XX
PF
     12-DEC-2001; 2001WO-DK000822.
XX
PR
     12-DEC-2000; 2000DK-00001863.
XX
PΑ
     (ENKA-) ENKAM PHARM AS.
XX
PI
     Bock E, Berezin V, Kohler LB;
XX
DR
     WPI; 2002-583473/62.
XX
PT
     Use of a compound comprising a peptide of neural cell adhesion molecule,
     in the preparation of medicament for preventing death of cells presenting
PT
PT
     NCAM or NCAM ligand and treating central nervous system diseases.
XX
PS
     Disclosure; Page 16; 57pp; English.
XX
CC
     The invention relates to use of a compound (I) comprising a peptide which
CC
     comprises at least 5 contiguous amino acid residues of a sequence of the
CC.
     neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,
CC
     for the preparation of a medicament for preventing death of cells
CC
     presenting the NCAM or an NCAM ligand. (I) is useful in the preparation
CC
     of a medicament for preventing death of cells presenting the NCAM or an
CC
     NCAM ligand. The medicament is for the stimulation of the survival of
CC
     heart muscle cells, such as survival after acute myocardial infarction.
CC
     The medicament is for the treatment of diseases or conditions of the
CC.
     central and peripheral nervous system, such as postoperative nerve
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
```

```
degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
CC
     Huntington's disease. The medicament is for the treatment of diseases or
     conditions of the muscles including conditions with impaired function of
CC
CC
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
     disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
CC
     ABG69352 represent human NCAM peptides of the invention
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 8.2e+02;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             4; Conservative
            1 AKKE 4
Qу
              | | | |
            1 AKKE 4
Db
RESULT 20
AA018039
ID
     AAO18039 standard; peptide; 11 AA.
XX
AC
     AA018039;
XX
DT
     30-AUG-2002 (first entry)
XX
DΕ
     Human immunoglobulin E epitope SEQ ID NO: 31.
XX
     Allergy; immunoglobulin E; IgE; vaccine; immunogen; epitope; human;
KW
KW
     non-anaphylactogenic; antiallergic.
XX
os
     Homo sapiens.
XX
PN
     WO200234288-A2.
XX
PD
     02-MAY-2002.
XX
     24-OCT-2001; 2001WO-EP012392.
PF
XX
     27-OCT-2000; 2000GB-00026334.
PR
XX
     (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
PA
XX
PΙ
     Vinals Y De BassolsC;
XX
     WPI; 2002-479702/51.
DR
XX
PT
     New peptides epitopes and mimotopes derived from IgE, useful for treating
PT
     or preventing allergies, for typing circulating anti-IgE, or for
PT
     diagnosing atopy.
XX
PS
     Claim 1; Page 5; 28pp; English.
XX
CC
     The present invention provides peptide epitopes derived from human
CC
     immunoglobulin E (IgE), which are non-anaphylactogenic and can be used as
```

```
immunogens to diagnose and treat allergies. The present sequence is an
CC
     epitope of the invention
CC
XX
     Sequence 11 AA;
SO
  Query Match
                          36.4%; Score 4; DB 5; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.2e+02;
             4; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            4 ERQR 7
Qу
              1111
            2 ERQR 5
Db
RESULT 21
AAP60142
     AAP60142 standard; peptide; 11 AA.
ID
XX
AC
     AAP60142;
XX
     25-MAR-2003 (revised)
DT
     31-OCT-2002 (revised)
DT
     07-JUL-1991 (first entry)
DT
XX
     Type 3 pentapeptide linked to VP3 peptide suitable for use in a vaccine
DE
DΕ
     against a disease caused by type 3 poliovirus.
XX
KW
     Vaccine; diagnosis; enterovirus disease; poliovirus type 1; type 2;
KW
     type 3.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FΗ
     Key
FT
     Region
                     1. .5
                     /label= type 3 pentapeptide
FT
     Misc-difference 1
FΤ
FT
                     /label= R,K
                     /note= "pref. R"
FT
     Misc-difference 2
FT
FT
                     /label= N,Q,D,E
                     /note= "pref. N"
FT
     Misc-difference 3
FT
FT
                     /label= see above
     Misc-difference 5
FT
FT
                     /label= D,E
                     /note= "pref. D"
FT
                     6. .11
FT
     Region
                     /label= VP3 peptide
FT
XX
     EP197772-A.
PN
XX
     15-OCT-1986.
PD
XX
PF
     03-APR-1986;
                    86EP-00302481.
XX
PR
     03-APR-1985;
                    85GB-00008685.
     03-APR-1986;
                    86GB-00008140.
PR
```

```
XX
PA
     (NATR ) NAT RES DEV CORP.
     (BRTE-) BRITISH TECHNOLOGY GROUP LTD.
PΑ
XX
     Minor PD, Evans DMA, Schild GC, Almond JW, Ferguson M;
PΙ
XX
     WPI; 1986-273645/42.
DR
XX
     Synthetic peptide for vaccination or diagnosis of enter-virus disease -
PT
     comprises fragment coded for by polio virus type 3 Sabin strain capsid
PT
PT
     protein RNA.
XX
     Disclosure; Page 15; 53pp; English.
PS
XX
CC
     The inventors claim synthetic peptides for use in vaccination against or
     diagnosis of a disease caused by an enterovirus (see AAN60118). The
CC
     peptides are coded for by codons 286-288 or 286-290 in the RNA sequence
CC
     coding for the structural capsid protein VP1 of poliovirus type 3 Sabin
CC
     strain or by equivalent codons of another enterovirus, or antigenic
CC
     equivs. Also claimed are synthetic peptides comprising the above peptides
CC
CC
     linked to (a) a hexapeptide coded for by codons 93-98 as above, or (b) a
CC
     peptide sequence comprising AA residues 58 and 59 of the VP3 capsid
     protein of an enterovirus. Typical doses are 100mg-lmg, i.m. (Updated on
CC
CC
     31-OCT-2002 to add missing OS field.) (Updated on 25-MAR-2003 to correct
CC
     PA field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            8 KDT 10
Qу
              9 KDT 11
Db
RESULT 22
AAP71164
     AAP71164 standard; protein; 11 AA.
ID
XX
AC
     AAP71164;
XX
     25-MAR-2003
DT
                  (revised)
     03-OCT-2002
                  (revised)
DT
DT
     04-APR-1991
                 (first entry)
XX
     Peptide which inhibits the binding of fibrinogen to platelets.
DE
XX
KW
     Fibrinogen; platelets; cancer; cell attachment.
XX
OS
     Synthetic.
XX
PN
     EP220957-A.
XX
PD
     06-MAY-1987.
XX
```

```
27-OCT-1986;
                    86EP-00308335.
PF
XX
PR
     28-OCT-1985;
                    85US-00791872.
XX
PΑ
     (SCRI ) SCRIPPS CLINIC & RES FOUND.
XX
PI
     Zimmerman TS, Ruggeri ZM, Houghten R;
XX
DR
     WPI; 1987-124477/18.
XX
     New peptide(s) - useful for modulating cell adhesion and inhibiting
PT
     binding of adhesive proteins to blood platelets esp. in treating cancers.
PT
XX
PS
     Claim 19; Page 7; 7pp; English.
XX
     The peptide inhibits the binding of fibrinogen to platelets and inhibits
CC
CC
     the aggregation of cells or platelets to each other since it modulates
CC
     cell adhesion and inhibits the binding of adhesive proteins to blood
     platelets. The peptide has superior activity to known peptides and has
CC
     similar properties. The peptide is useful for therapeutic and diagnostic
CC
CC
     purposes, esp. for inhibiting cell-cell attachment and cell growth
CC
     phenomena such as cancer. (Updated on 03-OCT-2002 to add missing OS
     field.) (Updated on 25-MAR-2003 to correct PA field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 RQR 7
              IIII
            6 ROR 8
Db
RESULT 23
AAP90643
ID
     AAP90643 standard; protein; 11 AA.
XX
     AAP90643;
AC
XX
DT
     10-MAR-2003 (revised)
     09-AUG-1990 (first entry)
DT
XX
DΕ
     Signal peptide NOS Synthetic.
XX
KW
     NOS; signal peptide; nucleolus.
XX
OS
     Unidentified.
XX
     JP01096196-A.
PN
XX
PD
     14-APR-1989.
XX
PΕ
     08-OCT-1987;
                    87JP-00252377.
XX
     08-OCT-1987; 87JP-00252377.
PR
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```
XX
PA
     (HATA/) HATANAKA S.
XX
DR
     WPI; 1989-155085/21.
XX
PT
     New peptide NOS having specific aminoacid sequence - used to localise
     protein in nucleolus.
PT
XX
ΡS
     Claim 1; Page 1; 12pp; Japanese.
XX
CC
     The peptide is useful for localising a protein in the nucleolus. DNA
     encoding it is inserted downstream of promoter in a plasmid to give pNOS
CC
CC
     Synthetic. DNA encoding an opt protein is also ligated into the vector,
     and the pNOS introduced to a host (eq E.coli). Plasmid DNA is then
CC
     extracted from the cells and transfected into eukaryotic cells which have
CC
ĊC
     a nucleolus. Protein localisation can be detected immunologically within
CC
     hours. See also AAP90642-4. (Updated on 10-MAR-2003 to add missing OS
CC
     field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 ROR 7
Qу
              +11
Db
            6 RQR 8
RESULT 24
AAR02183
     AAR02183 standard; protein; 11 AA.
XX
АC
     AAR02183;
XX
DT
     10-MAR-2003
                  (revised)
DT
     02-AUG-1990
                 (first entry)
XX
     Peptide which binds to Immunoglobulin E (lgE) receptors inhibiting lgE
DE
DE
     binding.
XX
KW
     Immunoglobulin E (IgE); anti-allergic drug; IgE binding inhibitor.
XX
OS
     Unidentified.
XX
FH
                     Location/Qualifiers
     Key
FT
     Misc-difference 1
FΤ
                     /label= OTHER
                     /note= "H-Ala"
FT
FT
     Misc-difference 11
FT
                     /label= OTHER
FT
                     /note= "Phe-OH"
XX
ΡN
     JP01299298-A.
XX
     04-DEC-1989.
PD
```

```
XX
PF
     27-MAY-1988;
                    88JP-00129721.
XX
PR
     27-MAY-1988;
                    88JP-00129721.
XX
PΑ
     (KYOW ) KYOWA HAKKO KOGYO KK.
XX
DR
     WPI; 1990-019330/03.
XX
PT
     Peptides which bind to IgE receptors inhibiting IgE binding - used as
     antiallergic drug having no side effects.
PT
XX
     Claim 2; Page 843; 8pp; Japanese.
PS
XX
CC
     It is the new sequence No 15 and has an anti-allergic effect. It binds to
CC
     IgE receptors on cell surfaces and inhibits IgE binding to receptors. It
CC
     can be used as an anti-allergic drug, having no side effects. (Updated on
CC
     10-MAR-2003 to add missing OS field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            6 QRK 8
              Db
            7 QRK 9
RESULT 25
AAR06031
ID
     AAR06031 standard; protein; 11 AA.
XX
AC
     AAR06031;
XX
DT
     25-MAR-2003
                 (revised)
DT
     20-NOV-1990
                 (first entry)
XX
DE
     Oligopeptide, antigenic to N.menigitidis.
XX
     Meningococcal disease; meningitis; vaccine;
KW
KW
     Class I outer membrane protein; ds.
XX
OS
     Neisseria meningitidis.
XX
     WO9006696-A.
PN
XX
PD
     28-JUN-1990.
XX
PF
     19-DEC-1988;
                    88NL-00003111.
XX
PR
     19-DEC-1988;
                    88NL-00003111.
PR
     06-JAN-1989;
                    89NL-00000036.
PR
     26-JUN-1989;
                    89NL-00001612.
XX
PΑ
     (PRAX-) PRAXIS BILOGICS IN.
```

```
(VOLK-) RIJKINSINST VOLKSGEZONDH.
PA
     (SEID/) SEID R C.
     (NEVW-) NEDERLAND VERT MIN VAN.
PA
XX
PΙ
     Seid RC, Paradiso PR, Poolman JT, Hoogerhout P, Wiertz EJ;
ΡI
     Vanderley P, Heckels JE, Clarke IN;
XX
DR
     WPI; 1990-224326/29.
XX
     Meningococcus class 1 outer-membrane protein vaccine - useful to immunise
PT
PT
     against meningococcal disease.
XX
PS
     Claim 50; Page 102; 120pp; English.
XX
     Peptides derived from outer membrane, encoding homo/heterologous product
CC
     such as a antigen-flagelin fusion protein, are useful in eliciting a
CC
     strong and wide ranging immune response against most serotypes. (Updated
CC
     on 25-MAR-2003 to correct PA field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.8e+03;
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            8 KDT 10
Qу
             3 KDT 5
RESULT 26
AAR08092
    AAR08092 standard; protein; 11 AA.
ID
XX
AC
    AAR08092;
XX
DT
     25-MAR-2003 (revised)
DT
     01-MAR-1991
                 (first entry)
XX
DE
    Antifreeze segment #2 encoded by SS3.
XX
KW
     synthetic antifreeze polypeptide; cryopreservation;
    core repetitive sequence.
KW
XX
OS
    Synthetic.
XX
    WO9013571-A.
PN
XX
PD
    15-NOV-1990.
XX
    10-MAY-1989;
                    89US-00350481.
PF
XX
    10-MAY-1989;
                    89US-00350481.
PR
PR
    10-APR-1990;
                    90US-00507716.
XX
PΑ
     (DNAP ) DNA PLANT TECHN COR.
XX
```

PΑ

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XX
DR
     WPI; 1990-361428/48.
XX
     New anti-freeze poly-peptide(s) - used for cryo-protection of e.g. foods,
PT
     medically used biological(s), plant prods. or plants during growth.
PT
XX
     Disclosure; Fig 4; 111pp; English.
PS
XX
     Synthetic anti-freeze polypeptides (saf) comprise a specifically
CC
    cleavable site and a region containing at least two "core" segments such
CC
     as the 11mer given here. The saf's suppress ice crystal growth by binding
CC
     to the growing crystal face and blocking sites for further crystal
CC
     growth. They can be used to maximise retention of important properties of
CC
     organic materials through freezing and thawing processes. The basic
CC
    design of the polypeptides is based on known antifreeze polypeptides from
CC
     insects and fish, e.g. the winter flounder. See also AAQ06649-Q06652,
CC
     AAOO6656, AAOO6658, AAQO6660-QO6672, AARO8070-6, AARO8087-R08091,
CC
    AAR08093. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-
CC
     MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
                                                                              0;
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
  Matches
            1 AKK 3
Qу
              III
Db
            8 AKK 10
RESULT 27
AAR15673
    AAR15673 standard; protein; 11 AA.
ID
XX
AC
     AAR15673;
XX
DT
     25-MAR-2003
                  (revised)
DT
     13-FEB-1992 (first entry)
XX
     Asn-residue specific protease Asn-component.
DE
XX
     Asparagine; Asn; protease; transpeptidation; amine; DNP.
KW
XX
OS
     Synthetic.
XX
PN
     EP458475-A.
XX
PD
     27-NOV-1991.
XX
PF
     30-APR-1991;
                    91EP-00303884.
XX
PR
     21-MAY-1990;
                    90JP-00129148.
XX
     (TAKI ) TAKARA SHUZO CO LTD.
PA
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Warren GJ, Mueller JM, Mckown RJ, Dunsmuir P;

PΙ

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Koyama N, Kato I, Matsushita H, Abe Y, Ishii SI;
PI
XX
DR
     WPI; 1991-348154/48.
XX
     Asparagine-residue specific protease - used as trans:peptisation reagent
PT
     for the prepn. of peptide(s) esp. physiologically active peptide(s).
PT
XX
     Disclosure; Page 7; 12pp; English.
PS
XX
     This peptide is used as Asn component and GG, GGH, G-NH2 or GG-NH2 as the
CC
     amine component. The reaction was carried out at 37 deg C for 3 hrs. with
CC
     the pH 7.7. The reaction mix. was analysed by C18 reversed-phase HPLC.
CC
     The transpeptidation prod. is shown in AAR15674. See also AAR15672-74.
CC
     (Updated on 25-MAR-2003 to correct PA field.)
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.8e+03;
                                                                              0;
             3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
  Matches
            5 ROR 7
Qу
              111
            8 RQR 10
Db
RESULT 28
AAR12168
     AAR12168 standard; protein; 11 AA.
XX
AC
     AAR12168;
XX
DT
     20-AUG-1991 (first entry)
XX
DE .
     Neuropeptide Y analogue #3.
XX
KW
     neuropeptide Y; NPY; antagonist.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Misc-difference 2
FT
                     /label= OTHER
                     /note= "8-aminooctanoic acid"
FT
XX
PN
     DE3939797-A.
XX
PD
     06-JUN-1991.
XX
                    89DE-03939797.
PF
     01-DEC-1989;
XX
PR
     01-DEC-1989;
                    89DE-03939797.
XX
PΑ
     (BADI ) BASF AG.
XX
PΙ
     Zechel JC, Schult S, Unger L;
```

XX

```
XX
     WPI; 1991-172223/24.
DR
XX
     New peptide(s) derived from neuro-peptide Y - are neuro-peptide Y
PT
     antagonists, useful as hypotensives and in treatment of e.g. vessel
PT
РΤ
     spasms.
XX
PS
     Example 5; Page 5; 7pp; German.
XX
     This peptide is a competitive antagonist of neuropeptide Y so is useful
CC
     for treating high blood pressure and vascular spasms. It can also be used
CC
     as a diagnostic/analytical reagent, e.g. for investigating biochemical or
CC
     patho-physiological properties of neuropeptide Y. See also AAR12164,
CC
     AAR12166-7 and AAR12169-R12175
CC
ХX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                               0;
  Matches
            3; Conservative
                                0; Mismatches
                                                    0; Indels
            5 RQR 7
Qу
              \mathbf{I}
Db
            8 RQR 10
RESULT 29
AAR12171
     AAR12171 standard; protein; 11 AA.
ID
XX
AC
     AAR12171;
XX
DT
     20-AUG-1991 (first entry)
XX
DΕ
     Neuropeptide Y analogue #6.
XX
KW
     neuropeptide Y; NPY; antagonist.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FΗ
     Key
FT
     Misc-difference 3
                     /label= OTHER
FT
                      /note= "8-aminooctanoic acid"
FT
XX
PN
     DE3939797-A.
XX
PD
     06-JUN-1991.
XX
                    89DE-03939797.
PF
     01-DEC-1989;
XX
PR
     01-DEC-1989;
                    89DE-03939797.
XX
PA
     (BADI ) BASF AG.
XX
     Zechel JC, Schult S, Unger L;
PΙ
XX
```

```
WPI; 1991-172223/24.
DR
XX
PT
     New peptide(s) derived from neuro-peptide Y - are neuro-peptide Y
PT
     antagonists, useful as hypotensives and in treatment of e.g. vessel
PT
     spasms.
XX
     Example 27; Page 6; 7pp; German.
PS
XX
     This peptide is a competitive antagonist of neuropeptide Y so is useful
CC
     for treating high blood pressure and vascular spasms. It can also be used
CC
CC
     as a diagnostic/analytical reagent, e.g. for investigating biochemical or
     patho-physiological properties of neuropeptide Y. See also AAR12164,
CC
CC
     AAR12166-R12170 and AAR12172-5
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches 3; Conservative
                                0; Mismatches 0; Indels
                                                                              0;
                                                                      Gaps
            5 ROR 7
Qy
              | | |
            8 RQR 10
Db
RESULT 30
AAR12173
     AAR12173 standard; protein; 11 AA.
XX
AC
     AAR12173;
XX
    20-AUG-1991 (first entry)
DT
XX
DE
     Neuropeptide Y analogue #8.
XX
KW
     neuropeptide Y; NPY; antagonist.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
FT
                     /label= p-hydroxyphenylpropionyl-Pro
FT
     Misc-difference 2
FT
                     /label= OTHER
FT
                     /note= "8-aminooctanoic acid"
XX
PN
     DE3939797-A.
XX
PD
     06-JUN-1991.
XX
                    89DE-03939797.
PF
     01-DEC-1989;
XX
PR
     01-DEC-1989;
                    89DE-03939797.
XX
PΑ
     (BADI ) BASF AG.
XX
PI
     Zechel JC, Schult S, Unger L;
```

```
XX
DR
     WPI; 1991-172223/24.
XX
PT
     New peptide(s) derived from neuro-peptide Y - are neuro-peptide Y
PT
     antagonists, useful as hypotensives and in treatment of e.g. vessel
PT
     spasms.
XX
PS
     Example 18; Page 6; 7pp; German.
XX
CC
     This peptide is a competitive antagonist of neuropeptide Y so is useful
CC
     for treating high blood pressure and vascular spasms. It can also be used
CC
     as a diagnostic/analytical reagent, e.g. for investigating biochemical or
CC
     patho-physiological properties of neuropeptide Y. See also AAR12164,
CC
     AAR12166-R12172 and AAR12174-5
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
            5 ROR 7
Qу
Db
            8 ROR 10
RESULT 31
AAR22743
ID
     AAR22743 standard; protein; 11 AA.
XX
AC
    AAR22743;
XX
DT
     25-MAR-2003 (revised)
DT
     27-AUG-1992
                 (first entry)
XX
DE
     Non-A, Non-B hepatitis virus antibody binding peptide.
XX
KW
     NANBH; immunoreactive; detection.
XX
OS
     Synthetic.
XX
PN
     EP479376-A.
XX
     08-APR-1992.
PD
XX
PF
     05-OCT-1990;
                    90EP-00202658.
XX
PR
     26-SEP-1991;
                    91EP-00202498.
XX
PA
     (ALKU ) AKZO NV.
XX
PI
     Habets WJA;
XX
DR
    WPI; 1992-116131/15.
XX
PT
     New peptide(s) reactive with antibodies to hepatitis non-A, non-B, virus
PT
     - for detection of NANBH and its antibodies in body fluids.
```

```
XX
PS
     Example; Page 7; 9pp; English.
XX
CC
     The sequence is that of a peptide which is immunoreactive with antibodies
CC
    to hepatitis non-A, non-B (NANBH) virus, it was prepd. by stepwise solid
     phase peptide synthesis. It can be used to detect NANBH antibodies in
CC
     test fluids. It has improved immunochemical reactivity, a high affinity
CC
CC
     to NANBH antibodies and is of a safe, non-infectious origin. See also
     AAR22727-R22744. (Updated on 25-MAR-2003 to correct PF field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            6 ORK 8
Qу
              1 ORK 3
RESULT 32
AAR35381
     AAR35381 standard; peptide; 11 AA.
ID
XX
AC
    AAR35381;
XX
DT
    25-MAR-2003 (revised)
DT
    07-JUN-1993 (first entry)
XX
DE
    Amphiphilic peptide #112 used to treat oral infections.
XX
KW
     Adverse oral conditions; amphipathic; anti-bacterial; anti-viral;
    anti-fungal; dental plaque; dental caries; periodontal disease;
KW
KW
     gingivitis; ionophore; ion-channel forming.
XX
OS
     Synthetic.
XX
PN
    WO9301723-A1.
XX
PD
     04-FEB-1993.
XX
     09-JUL-1992;
                   92WO-US005757.
PF
XX
PR
     25-JUL-1991;
                   91US-00735070.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Berkowitz B, Jacob L;
XX
    WPI; 1993-058434/07.
DR
XX
    Peptide(s) for prophylaxis and treatment of oral disorders - used for
PT
PT
     periodontal disease, plaque, dental caries, gingivitis, etc.
XX
PS
     Claim 2; Page 129; 143pp; English.
XX
```

```
This is a specific example of a highly generic formula covering preferred
CC
     amphiphilic peptides for use in preventing or treating adverse oral
CC
     conditions. The peptide is an ionophore (i.e. an ion- channel forming
CC
     peptide) which has anti-bacterial, anti-viral, anti-fungal activity,
CC
     etc. making it suitable for use in oral compositions to treat or prevent
CC
     periodontal disease, plaque, dental caries, halitosis and gingivitis. The
CC
     anti-bacterial action will also be useful against bacteria associated
CC
     with dental implant infections and the peptides can stimulate the healing
CC
     of wounds in the oral cavity. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
                               0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
             3; Conservative
 Matches
            1 AKK 3
Qу
              III
            1 AKK 3
Db
RESULT 33
AAR32351
     AAR32351 standard; peptide; 11 AA.
XX
AC
     AAR32351;
XX
DT
     05-JUL-1993 (first entry)
XX
     Human Factor X peptide.
DE
XX
KW
     Anticoagulant; intrinsic; extrinsic; prothrombin activation; thrombin;
     formation; Factor Xa; pathway mediated activation; inhibition.
KW
XX
OS
     Synthetic.
XX
PN
     US5187155-A.
XX
PD
     16-FEB-1993.
XX
PF
     23-JUN-1989;
                    89US-00371561.
XX
     23-JUN-1989;
PR
                    89US-00371561.
XX
PA
     (TEXA ) UNIV TEXAS SYSTEM.
XX
PΙ
     Fair DS:
XX
DR
     WPI; 1993-075751/09.
XX
     Compsns. comprising peptide(s) of 10-50 aminoacid residues - inhibit
PT
     factor X activation and/or Factor Xa function, useful for preventing
PT
     blood clot formation and treating deep vein thrombosis, pulmonary
PΤ
PT
     embolism, etc.
XX
     Example; Page 6; 23pp; English.
PS
```

```
XX
     The sequence is that of a peptide corresponding to amino acids 384-394 of
CC
CC
     the human factor X molecule which was tested for its effect, (as a % of
     the control rate), on the rate of Factor Xa formation and on the rate of
CC
     thrombin formation. The results obtd. were for activation of Factor X by
CC
     the extrinsic activation complex 100%, by the intrinsic activation
CC
     complex 72%, and activation by RVV-X, 85%. For the rate of thrombin
CC
     formation the rate was 100% as compared to the control rate
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
             3: Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            8 KDT 10
Qу
              \mathbf{I}
            5 KDT 7
Db
RESULT 34
AAR33973
ID
     AAR33973 standard; peptide; 11 AA.
XX
AC
    AAR33973;
XX
DT
     25-MAR-2003
                  (revised)
DT
     21-JUL-1993 (first entry)
XX
DΕ
    Amphiphilic peptide (e), #2.
XX
KW
    Hydrophobic; hydrophilic; neutral; (e); ionophore; channel-forming;
KW
     human; virus; antimicrobial; antiviral; antibacterial; antitumour;
KW
     antiparasitic; spermicide; preservative; sterilant; disinfectant;
KW
     wound healing; burn; infection; eye; cysts; spores; trophozoites; plants;
KW
     contamination.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
     Modified-site
FT
FT
                     /note= "May be acetylated"
FT
     Modified-site
FT
                     /note= "May be amidated"
XX
PN
     WO9305802-A1.
XX
PD
     01-APR-1993.
XX
PF
     04-SEP-1992;
                    92WO-US007622.
XX
PR
     13-SEP-1991;
                    91US-00760054.
PR
     20-APR-1992;
                    92US-00870960.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Maloy WL, Kari UP, Williams JI;
```

```
XX
DR
     WPI; 1993-117245/14.
XX
PT
     New biologically active amphiphilic peptide cpds. - having ion channel-
PT
     forming properties used for inhibiting growth of target cells, virus or
PT
     viral-infected cells.
XX
PS
     Claim 27; Page 33; 46pp; English.
XX
     This sequence is an example of a biologically active peptide which
CC
     corresponds to the generic sequence; R1-R2-R2-R1-R1-R2-R2-R1-R2-R2-R1
CC
CC
     where R1 = a hydrophobic amino acid; and R2 = a basic hydrophilic or
CC
     neutral hydrophilic amino acid. This basic structure was designated (e).
CC
     Peptides such as this are ionophores ie. they have channel-forming
     properties. The peptides can be administered to a host, eg, humans, to
CC
CC
     inhibit the growth of a target cell, virus or virally infected cell. They
CC
     can be used as antimicrobial, antiviral agents, antibacterial agents,
CC
     antitumour agents, antiparasitic agents, and as spermicides. They can be
CC
     used as preservatives or sterilants or disinfectants. These peptides can
CC
     also be used to promote or stimulate healing of wounds, to treat and/or
CC
     prevent prevent skin or burn infections, to prevent or treat eye
     infections and to kill cysts, spores or trophozoites of infection causing
CC
CC
     organisms. The peptides may also be administered to plants to prevent or
CC
     treat microbial, viral or parasitic contamination. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches
            3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              -111
Db
            1 AKK 3
RESULT 35
AAR31163
     AAR31163 standard; peptide; 11 AA.
ID
XX
AC
    AAR31163;
XX
\mathbf{DT}
     25-MAR-2003
                  (revised)
DT
     10-MAY-1993
                 (first entry)
XX
DΕ
     C-terminal substd. amphiphilic peptide #112.
XX
ΚW
     ion-channel forming; ionophore; antibiotic; anti-tumour; anti-virus;
KW
     wound healing.
XX
OS
     Synthetic.
XX
FΗ
    Key
                     Location/Qualifiers
FT
    Modified-site
FT
                     /note= "Leu-(C=O)-T, T= O-R, NH-NH2, NH-OH or NR'R''; R=
                     opt.substd. 1-10C aliphatic, aromatic or aralkyl gp.; R',
FT
```

```
FT
                     R''= H or from one of gps. i and ii; gp.i= 1-10C hydroxy-
FΤ
                     substd. aliphatic, aromatic or aralkyl gp.; gp.ii= amino-
                     substd. aliphatic, aromatic, aralkyl or alkylaromatic gp.
FT
FT
                     and at least one of R' and R'' = qp.i or qp.ii''"
XX
PN
     WO9222317-A1.
XX
PD
     23-DEC-1992.
XX
PF
     01-JUN-1992;
                    92WO-US004603.
XX
     12-JUN-1991;
                    91US-00713716.
PR
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Maloy WL, Kari UP;
XX
DR
     WPI; 1993-017904/02.
XX
PT
     New C-terminal-substd. amphiphilic peptide(s) - for treating bacterial,
PT
     viral or fungal infections and tumours, also useful as spermicide.
XX
PS
     Claim 21; Page 114; 124pp; English.
XX
CC
     This peptide is a preferred example of a highly generic amphiphilic
CC
     peptide with a C-terminal modification which increases the peptide's
CC
     biological activity c.f. the unmodified peptide. The preferred C-terminal
CC
     modification is -(CO)-NHCH2CH2OH or -(CO)-NHCH2CH2NH2. Such substd.
CC
     peptides may be used for inhibiting the growth of a target cell, virus or
CC
     virally-infected cell in a host. The peptides have a broad range of
     potent antibiotic activity, e.g. against gram- negative and gram-positive
CC
     bacteria, fungi, protozoa and parasites. The peptides can also be used to
CC
CC
     promote wound healing and treatment of burns. Other preferred amphiphilic
CC
     peptides include magainins and their analogues, PGLa, XPF, CPF, a
CC
     cecropin and a sarcotoxin. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              IIII
Db
            1 AKK 3
RESULT 36
AAR34248
     AAR34248 standard; peptide; 11 AA.
XX
AC
     AAR34248;
XX
DT
     25-MAR-2003 (revised)
DT
     04-AUG-1993 (first entry)
XX
    Mutant HTLV-I residues 88-98, peptide 2L-1.2.
DE
```

```
XX
KW
     Human T-cell leukaemia virus; hydrophilic; conjugate; aggregate;
KW
     diagnosis; antibodies; gp46; mutant; gag; T cell epitope.
XX
OS
     Synthetic.
XX
ΡN
     WO9306843-A1.
XX
PD
     15-APR-1993.
XX
PF
     08-OCT-1992;
                    92WO-US008405.
XX
PR
     08-OCT-1991;
                    91US-00771553.
XX
     (UYDU-) UNIV DUKE.
PA
XX
PI
     Palker TJ, Haynes BF;
XX
DR
     WPI; 1993-134125/16.
XX
     Antigenic determinant peptide(s) of HTLV envelope glyco:protein - useful
PT
PT
     for detecting anti-HTLV-I and -II antibodies and as vaccine against HTLV.
XX
PS
     Example 7; Page 32; 50pp; English.
XX
CC
     To determine which amino acids within the HTLV-I envelope amino acids 88-
     98 were required for absorption of neutralising anti-peptide antibodies
CC
CC
     to HTLV-I, 11 peptides (2L1.1-2L1.11) were synthesised in which
CC
     sequential amino acids were each replaced by the amino acid alanine.
CC
     These 11 mutated peptides, as well as peptide 2L-1 bearing the native
CC
     HTLV-I sequence were tested and identified that amino acids 90, 92, 93
     and 95 were important for HTLV-I neutralisation. See also AAR34225-57.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              2 AKK 4
RESULT 37
AAR30442
ID
    AAR30442 standard; peptide; 11 AA.
XX
АC
    AAR30442;
XX
DT
     25-MAR-2003 (revised)
     17-MAY-1993
DT
                 (first entry)
XX
DE
     Synthetic sequence of glycoalbumin immunogen.
XX
    V8; trypsin; glycosylation; albumin; glucose; diabetes.
KW
```

```
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "in vivo glycosylated"
XX
PN
     US5173422-A.
XX
PD
     22-DEC-1992.
XX
PF
     03-MAY-1990;
                    90US-00518681.
XX
PR
     22-AUG-1986;
                    86US-00899456.
     02-JUN-1987;
                    87US-00054131.
PR
PR
     19-FEB-1988;
                    88US-00158200.
XX
PΑ
     (MILE ) MILES INC.
XX
PI
     Knowles WJ, Marchesi VT;
XX
DR
     WPI; 1993-017567/02.
XX
     Monoclonal antibody specific for human glyco-albumin - used for determn.
PT
PT
     of extent of glycosylation of albumin in monitoring glucose level in
     diabetes.
PT
XX
PS
     Disclosure; Page 14; 22pp; English.
XX
CC
     The sequence shows a preferred synthetic glycosylated peptide from
CC
     glycoalbumin. The peptide can be linked to a conventional immunogenic
CC
     carrier material to form an immunogen. The immunogen may be used to raise
CC
     monoclonal antibodies which are useful for the detection of the
CC
     glycosylated form of albumin in human blood samples. This serves as a
CC
     useful index of glucose level control in diabetics. See also AAR30460-71,
CC
     AAR30439-47, AAR30478-9, and AAR31165-78. (Updated on 25-MAR-2003 to
CC
     correct PF field.) (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative
                                0; Mismatches
                                                                  0; Gaps
                                                                               0;
                                                    0; Indels
            4 ERQ 6
Qу
              111
            2 ERQ 4
Db
RESULT 38
AAR30463
    AAR30463 standard; peptide; 11 AA.
XX
AC
     AAR30463;
XX
     25-MAR-2003 (revised)
DT
DT
     17-MAY-1993 (first entry)
```

```
XX
     Synthetic sequence of glycoalbumin in the region of lysine 525.
DE
XX
     V8; trypsin; glycosylation; albumin; glucose; diabetes.
KW
XX
     Synthetic.
OS
XX
FH
     Key
                     Location/Qualifiers
     Modified-site
FT
                     /note= "corresponds to lysine 525 and is in vivo
FT
                     glycosylated"
FT
XX
     US5173422-A.
PN
XX
     22-DEC-1992.
PD
XX
PF
     03-MAY-1990;
                    90US-00518681.
XX
                    86US-00899456.
PR
     22-AUG-1986;
     02-JUN-1987;
                    87US-00054131.
PR
PR
     19-FEB-1988;
                    88US-00158200.
XX
PA
     (MILE ) MILES INC.
XX
PΙ
     Knowles WJ, Marchesi VT;
XX
DR
     WPI; 1993-017567/02.
XX
PT
    Monoclonal antibody specific for human glyco-albumin - used for determn.
PT
     of extent of glycosylation of albumin in monitoring glucose level in
PT
     diabetes.
XX
     Disclosure; Fig 1; 22pp; English.
PS
XX
CC
     The sequence shows a preferred synthetic glycosylated peptide from
CC
     glycoalbumin in the region of lysine 525. The peptide can be linked to a
CC
     conventional immunogenic carrier material to form an immunogen. The
CC
     immunogen may be used to raise monoclonal antibodies which are useful for
CC
     the detection of the glycosylated form of albumin in human blood samples.
     This serves as a useful index of glucose level control in diabetics. See
CC
     also AAR30460-71, AAR30439-47, AAR30478-9, and AAR31165-78. (Updated on
CC
     25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                                              0;
  Matches
                                                   0; Indels
                                                                  0; Gaps
Qу
            4 ERQ 6
              Db
            2 ERQ 4
```

```
ID
     AAR30478 standard; peptide; 11 AA.
XX
AC
     AAR30478;
XX
DΤ
     25-MAR-2003
                  (revised)
     17-MAY-1993
DT
                  (first entry)
XX
     Synthetic sequence of glycoalbumin immunogen.
DE
XX
     V8; trypsin; glycosylation; albumin; glucose; diabetes.
KW
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
                     /note= "in vivo glycosylated"
FT
XX
     US5173422-A.
PN
XX
PD
     22-DEC-1992.
XX
PF
     03-MAY-1990;
                    90US-00518681.
XX
                    86US-00899456.
PR
     22-AUG-1986;
PR
     02-JUN-1987;
                    87US-00054131.
PR
     19-FEB-1988;
                    88US-00158200.
XX
PΑ
     (MILE ) MILES INC.
XX
PΙ
     Knowles WJ, Marchesi VT;
XX
DR
     WPI; 1993-017567/02.
XX
PT
     Monoclonal antibody specific for human glyco-albumin - used for determn.
PT
     of extent of glycosylation of albumin in monitoring glucose level in
PT
     diabetes.
XX
PS
     Disclosure; Page 12; 22pp; English.
XX
CC
     The sequence shows a preferred synthetic qlycosylated peptide from
CÇ
     glycoalbumin. The peptide can be linked to a conventional immunogenic
CC
     carrier material to form an immunogen. The immunogen may be used to raise
CC
     monoclonal antibodies which are useful for the detection of the
CC
     glycosylated form of albumin in human blood samples. This serves as a
CC
     useful index of glucose level control in diabetics. See also AAR30460-71,
CC
     AAR30439-47, AAR30479, and AAR31165-78. (Updated on 25-MAR-2003 to
CC
     correct PF field.) (Updated on 25-MAR-2003 to correct PR field.)
ХX
     Sequence 11 AA;
SO
                                  Score 3; DB 2; Length 11;
  Query Match
                          27.3%;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            4 ERQ 6
              \perp
Db
            2 ERQ 4
```

```
RESULT 40
AAR41495
ID
     AAR41495 standard; peptide; 11 AA.
XX
AC
     AAR41495;
XX
     23-FEB-1994 (first entry)
DT
XX
     TNF inhibitory peptide VII.
DE
XX
KW
     Tumour necrosis factor; TNF; inhibition; solid phase synthesis; ss.
XX
OS
     Synthetic.
XX
PN
     JP05194594-A.
XX
PD
     03-AUG-1993.
XX
PF
     21-JAN-1992;
                    92JP-00029044.
XX
PR
     21-JAN-1992;
                    92JP-00029044.
XX
PA
     (SAGA ) SAGAMI CHEM RES CENTRE.
XX
DR
     WPI; 1993-282916/36.
XX
PT
     TNF inhibitory novel peptide(s) - include N-terminal amino Gp. which is
PT
     opt. modified with acetyl, T-butoxy-carbonyl or benzyl-oxy-carbonyl Gp.
PT
     and C-terminal carboxy Gp. is opt. amidated.
XX
PS
     Claim 1; Page 6; 8pp; Japanese.
XX
CC
     The sequences given in AAR41489-99 are tumour necrosis factor (TNF)
CC
     inhibitory peptides. They may optionally be modified at the N- terminal
CC
     with an acetyl, t-butoxycarbonyl or benzyloxycarbonyl, and at the C-
     terminal they are optionally amidated. These peptides are produced by
CC
CC
     solid phase synthesis methods and may be produced at low cost
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative
                                0; Mismatches
                                                                               0;
  Matches
                                                    0; Indels
                                                                  0; Gaps
            1 AKK 3
Qу
              +++
Db
            3 AKK 5
RESULT 41
AAR39369
ID
     AAR39369 standard; peptide; 11 AA.
XX
АC
     AAR39369;
XX
```

```
25-MAR-2003
DT
                  (revised)
DT
     07-DEC-1993
                  (first entry)
XX
DE
     Human glycoalbumin peptide ALB C11L.
XX
     glycosylated albumin; immunogen; diabetes; diagnosis;
KW
     monoclonal antibody.
KW
XX
     Homo sapiens.
OS
XX
FH
     Key
                     Location/Qualifiers
FT
     Misc-difference 1
                     /note= "enables specific coupling of the peptide to
FT
FT
                     immunogenic carrier"
FT
     Modified-site
                     /note= "potential site of further glycosylation during
FT
FT
                     synthesis"
FT
     Modified-site
                     /note= "glycosylated Lys525"
FT
XX
ΡN
     US5225354-A.
XX
PD
     06-JUL-1993.
XX
PF
     21-AUG-1992;
                    92US-00934085.
XX
     22-AUG-1986;
                    86US-00899456.
PR
     02-JUN-1987;
                    87US-00054131.
PR
     19-FEB-1988;
                    88US-00158200.
PR
PR
     03-MAY-1990;
                    90US-00518681.
XX
PA
     (MOLE-) MOLECULAR DIAGNOSTICS INC.
XX
PΙ
     Knowles WJ, Marchesi VT;
XX
DR
     WPI; 1993-226613/28.
XX
PT
     Immunoassay for glycosylated albumin in blood - using monoclonal antibody
PT
     which binds specifically to human albumin glycosylated at lysine residue
PT
     525.
XX
PS
     Claim 10; Fig 1; 22pp; English.
XX
CC
    Novel monoclonal antibodies are specific for glycosylated human albumin
     in the region around Lys (525). Antibodies are pref. raised against
CC
     peptides having the sequence Lys(519)-Glu(531), or their N- and/or C-
CC
     terminal deletions, provided Lys(525) is present. Additional Tyr and/or
CC
CC
     Cys residues are opt. present at one or both peptide termini. The
CC
     determination of the extent of glycosylation of albumin in an
CC
     individual's blood provides a useful index of glucose level control in
CC
     diabetics. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
 Matches
             3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
4 ERQ 6
Qу
             Db
            2 ERQ 4
RESULT 42
AAR45132
     AAR45132 standard; peptide; 11 AA.
ID
XX
     AAR45132;
AC
XX
DT
     25-MAR-2003 (revised)
DT
     28-JUN-1994 (first entry)
XX
DE
     Amphiphilic peptide for N-terminal lipophilic substitution.
XX
KW
     Ion channel; magainin; PGLa; XPF; CPF; cecropin; sarcotoxin; amphiphilic;
KW
     hydrophobic; hydrophilic; lipophilic; growth; inhibition; target cell;
KW
     virus; virally-infected cell; antimicrobial; antiviral; antitumour;
KW
     antiparasitic; spermicide; wound healing; burn; infection.
XX
OS
     Synthetic.
XX
PΝ
     WO9324138-A1.
XX
PD
     09-DEC-1993.
XX
PF
     27-MAY-1993;
                    93WO-US005192.
XX
     01-JUN-1992;
PR
                    92US-00891201.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U;
XX
     WPI; 1993-405419/50.
DR
XX
PT
     Peptide(s) or proteins with an N-terminal lipophilic substit. - used for
PT
     inhibiting growth of target cell, virus or virally-infected cell.
XX
PS
     Disclosure; Page 97-103; 113pp; English.
XX
CC
     A novel compsn. for inhibiting growth of a target cell, virus or virally-
CC
     infected cell comprises a peptide of formula T-N(W)-X (I). X is a
CC
     biologically active amphiphilic ion channel-forming peptide or protein;
CC
     pref. a magainin peptide, a PGLa peptide, a XPF peptide, a CPF peptide, a
CC
     cecropin or a sarcotoxin. N is the nitrogen of the N-terminal amino
     group. T is a lipophilic moiety; pref. R-CO, where R is a 2-16C
CC
CC
     hydrocarbon (alkyl or aromatic or alkylaromatic). T is pref. an octanoyl
CC
     group. W is T or hydrogen. Amphiphilic peptides as examples of X are
     given in AAR45115-138. The N-terminal substd. peptides and proteins have
CC
     increased biological activity as compared with unsubstd. peptides or
CC
CC
     proteins or peptides substd. at the N-terminal with an acetyl gp. They
CC
     can be used as antimicrobial agents, antiviral agents, antitumour agents,
```

antiparasitic agents or spermicides and can also exhibit other bioactive

functions. They can also be used in promoting or stimulating wound

```
CC
     skin and burn infections or eye infections. (Updated on 25-MAR-2003 to
CC
     correct PN field.)
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
           3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                              0;
                                                                  0; Gaps
            1 AKK 3
QУ
              111
            1 AKK 3
Db
RESULT 43
AAR34421
     AAR34421 standard; peptide; 11 AA.
ID
XX
AC
     AAR34421;
XX
DT
     25-MAR-2003 (revised)
DT
     05-AUG-1993 (first entry)
XX
DE
     Hepatitis C Ab detection peptide #5.
XX
KW
     Test reagent; dectection; antibody; hepatitis C; virus; HCV; epitope;
KW
     structural region; diagnosis; ss.
XX
OS
     Synthetic.
XX
PN
     WO9307488-A1.
XX
PD
     15-APR-1993.
XX
PF
     02-OCT-1992;
                    92WO-JP001276.
XX
PR
     02-OCT-1991;
                    91JP-00255524.
PR
     26-MAR-1992;
                    92JP-00068695.
XX
PΑ
     (EIKE ) EIKEN KAGAKU KK.
     (OSAU ) UNIV OSAKA.
PA
     (TANA ) TANABE SEIYAKU CO.
PA
XX
PΙ
     Ishibashi K, Ito M, Yoshida I, Takamizawa A, Shibatani T;
XX
     WPI; 1993-134624/16.
DR
XX
PT
     Reagent for detecting antibodies to hepatitis C virus - comprises
PT
     peptide(s) with the same sequence as an epitope of an HCV structural
PT
     region.
XX
PS
     Disclosure; Page 43; 51pp; Japanese.
XX
CC
     The sequences given in AAR34417-25 are peptides which can be used in a
     test reagent for the dectection of antibodies against hepatitis C. The
CC
CC
     peptides represent epitopes of an HCV structural region and they react
```

healing, for the treatment of external burns and to treat and/or prevent

```
specifically with antibodies against the HCV structural region. Detection
CC
     is sensitive and and accurate and allows diagnosis of the infection at a
     very early stage. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 QRK 8
Qу
              111
Db
            1 QRK 3
RESULT 44
AAR55163
ID
     AAR55163 standard; protein; 11 AA.
XX
AC
     AAR55163;
XX
DT
     25-MAR-2003
                  (revised)
DT
     11-JAN-1995
                  (first entry)
XX
DE
     Fragment of retinoic acid receptor RAR-beta.
XX
KW
     Liver; hap; retinoic acid receptor; steroid; thyroid; hormone; hepatoma;
KW
     retinoid; antibody.
XX
OS
     Homo sapiens.
XX
PN
     US5317090-A.
XX
PD
     31-MAY-1994.
XX
PF
     11-DEC-1992;
                    92US-00989902.
XX
PR
     16-DEC-1987;
                    87US-00133687.
PR
     17-DEC-1987;
                    87US-00134130.
     20-JUN-1988;
                    88US-00209009.
PR
PR
     30-NOV-1988;
                    88US-00278136.
PR
     30-MAR-1989;
                    89US-00330405.
PR
     21-AUG-1991;
                    91US-00751612.
PR
     30-MAR-1992;
                    92US-00860577.
XX
     (INSP ) INST PASTEUR.
PA
XX
PΙ
     Marchio A, Chambon P, Petkovich M, Krust A, Dejean A, Tiollais P;
PΙ
     Brand N, De The HB;
XX
DR
     WPI; 1994-176333/21.
XX
     Antibody specific for retinoic acid receptor-beta - useful for detecting,
PT
PT
     quantifying and identifying agonists and antagonists of retinoid
PT
     activity.
XX
PS
     Claim 4; Col 40; 35pp; English.
```

```
XX
     The retinoic acid receptor RAR-beta is encoded by a gene designated hap.
CC
CC
     The hap gene is transcribed at low level in most human tissues, but the
CC
     gene is overexpressed in prosate and kidney. Six out of seven hepatoma or
     hepatoma-derived cell lines express a small hap transcript which is
CC
     undetectable in normal adult and foetal livers but present in all non-
CC
     hepatic tissues tested. (Updated on 25-MAR-2003 to correct PF field.)
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
          3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            2 KKE 4
Qу
              7 KKE 9
Db
RESULT 45
AAR50563
     AAR50563 standard; peptide; 11 AA.
XX
AC
     AAR50563;
XX
DT
     25-MAR-2003
                  (revised)
     18-OCT-1994 (first entry)
DT
XX
DE
     Amphiphillic peptide #112.
XX
KW
     Amphiphilic; ion forming; gynaecological malignancy; magainin; PGLa; XPF;
·KW
     CPF; cecropin; sarcotoxin; melittin; apidaecin; defensin;
     major basic protein; eosinophils; uterine; cervical; cancer;
KW
KW
     bacterial permeability increasing protein; ovarian; stage IC.
XX
OS
     Synthetic.
XX
ΡN
     WO9405313-A1.
XX
PD
     17-MAR-1994.
XX
PF
     16-AUG-1993;
                    93WO-US007798.
XX
     31-AUG-1992;
PR
                    92US-00937462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
     Jacob LS, Maloy WL, Baker MA;
PΙ
XX
DR
     WPI; 1994-100851/12.
XX
PT
     Treating gynaecological tumours with amphiphilic peptide(s) - which form
PT
     ion channels, e.g. magainin or PGLa peptide(s), partic. for treating
PT
     ovarian, uterine or cervical cancers.
XX
PS
     Disclosure; Page 116; 130pp; English.
XX
```

```
CC
     The sequences given in AAR50452-568 represent amphiphilic, ion forming
CC
     peptides which may be used to treat gynaecological malignancy. These
CC
     peptides are based on magainin, PGLa, XPF or CPF, a cecropin, a
CC
     sarcotoxin, melittin, an apidaecin, a defensin, major basic protein of
     eosinophils or a bacterial permeability increasing protein. These
CC
     peptides are esp. used to treat ovarian, esp. stage IC, uterine or
CC
     cervical cancers. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                         100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            1 AKK 3
Qу
             -111
            1 AKK 3
Db
RESULT 46
AAR55987
     AAR55987 standard; peptide; 11 AA.
XX
AC
    AAR55987;
XX
DT
     25-MAR-2003
                 (revised)
     19-DEC-1994 (first entry)
DT
XX
DE
     Ion channel forming peptide.
XX
KW
     Ion channel forming peptide; tumour; skin disease; mallignancy; melanoma;
KW
     carcinoma; basal cell; squamous cell; magainin; PGLa; CPF peptides;
     cercopins; sarcotoxin; mellitin; apidocin; defensins;
KW
KW
     major basic protein; bacteria-permeability increasing protein; perforin.
XX
OS
     Synthetic.
XX
PN
     WO9412206-A1.
XX
PD
     09-JUN-1994.
XX
PF
     03-DEC-1993;
                    93WO-US011885.
XX
    03-DEC-1992;
PR
                   92US-00984957.
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Jacob LS, Maloy WL;
XX
DR
    WPI; 1994-199965/24.
XX
PT
     Treating skin cancer with ion channel forming peptide(s) - e.g.
PT
    magainins, mellitin etc., specifically for treating melanoma.
XX
PS
     Disclosure; Page 121; 136pp; English.
XX
CC
     The peptide is used to treat dermatological malignancies. It may be used
```

```
CC
     to treat especially melanoma but also basal cell and squamous cell
CC
     carcinomas. It can be used together with an ion which also
CC
     inhibits/prevents growth of the target cell. Peptides used for such
     therapy include magainin, PGLa or CPF peptides; cercopins, sarcotoxins,
CC
     mellitin, apidocins, defensins, major basic protein of eosimophils;
CC
     bacteria-permeability increasing protein and perforin. See also AAQ55876-
CC
CC
     Q55997. (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SQ
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches 0; Indels
 Matches
                                                                 0; Gaps
                                                                             0;
            1 AKK 3
Qу
             1 AKK 3
Db
RESULT 47
AAR59065
     AAR59065 standard; peptide; 11 AA.
XX
AC
    AAR59065;
XX
DT
     25-MAR-2003
                 (revised)
     21-APR-1995 (first entry)
DT
XX
DE
     Cancer treating, amphiphilic ion-channel forming peptide.
XX
KW
     Amphiphilic ion-channel forming peptide; cancer treatment;
KW
     protease inhibitors.
XX
OS
     Synthetic.
XX
PN
     W09419369-A1.
XX
PD
     01-SEP-1994.
XX
PF
     22-FEB-1994;
                    94WO-US002121.
XX
PR
     26-FEB-1993;
                    93US-00021607.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
    Herlyn M, Jacob LS, Maloy WL;
PΙ
XX
DR
    WPI; 1994-294258/36.
XX
PT
     Treating cancerous growths - by administering biologically active
PT
     peptide(s) and protease inhibitors.
XX
PS
     Claim 2; Page 106; 124pp; English.
XX
CC
     AAR59060 to AAR59066 are a group of amphiphilic ion-channel forming
     peptides conforming to the same generic sequence. Used in combination
CC
CC
     with one or more protease inhibitors and other amphiphilic ion-channel
```

```
CC
     cancerous growths. In particular during surgery and radiation treatment
CC
     they may be useful in ihibiting, preventing and/or destroying potential
CĊ
     "loose" malignant cells capable of colonising other sites. (Updated on 25
CC
     -MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
QУ
              111
            1 AKK 3
Db
RESULT 48
AAR56948
     AAR56948 standard; peptide; 11 AA.
XX
AC
     AAR56948;
XX
DT
     25-MAR-2003 (revised)
DT
     17-MAR-1995 (first entry)
XX
DE
     Peptide which neutralises bacterial endotoxin.
XX
KW
     septic shock; bacterial endotoxin; lipopolysaccharide; LPS;
     gram negative bacteria; conjugate moiety; septicemia; neutralising;
KW
KW
     longer activity; polyvinylpyrrolidone; dextran; hetastarch;
KW
     polyvinyl alcohol; ion-channel forming; amphiphilic.
XX
OS
     Synthetic.
XX
PN
     WO9413697-A1.
XX
PD
     23-JUN-1994.
XX
PF
     06-DEC-1993;
                    93WO-US011841.
XX
PR
     07-DEC-1992;
                    92US-00987443.
XX
PA
    (MAGA-) MAGAININ PHARM INC.
XX
PI
    Hendi M, Rao M,
                       Williams TJ;
XX
    WPI; 1994-217804/26.
DR
XX
PT
    New conjugates of bioactive amphiphilic peptide(s) and conjugate moiety -
PT
     are useful for treatment of septic shock.
XX
PS
     Disclosure; Page 115; 141pp; English.
XX
CC
     Septic shock is often due to the body's reaction to foreign
     lipopolysaccharide (LPS). The compounds of the invention neutralise
CC
CC
    bacterial endotoxins without neutralising essential proteins in the
```

forming peptides or proteins; they are effective in the treatment of

```
plasma of patients, eg.heparins. They also have longer duration of
CC
     activity than unconjugated peptides. In general peptides such as this are
CC
     ion-channel forming peptides. The compounds are biologically active
CC
CC
     peptides linked to a conjugate moiety, eq. carbohydrates, proteins,
CC
     polyvinylpyrrolidone, polyalkylene glycols and polyvinyl alcohols. The
CC
     conjugate moiety may be linked at the C- or N-terminal or internally of
CC
     the peptide. AAR55591-631 and AAR56879-957 are examples of these peptide-
CC
     conjugate moiety compounds (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                  0;
  Matches
                                                       Indels
                                                                 0; Gaps
                                                                              0;
            1 AKK 3
Qу
              111
            1 AKK 3
Db
RESULT 49
AAR50448
     AAR50448 standard; peptide; 11 AA.
ID
XX
AC
     AAR50448;
XX
DT
     25-MAR-2003
                  (revised)
DT
     17-OCT-1994
                 (first entry)
XX
DE
     Amphiphilic peptide #113.
XX
     Amphiphilic peptide; aprotic organic solvent; alcohol; antitumour;
KW
KW
     antibiotic; antimicrobial; antifungal; antiparasitic; anticancer;
KW
     antiviral; human; animal; plant; ion-channel; forming peptide.
XX
OS
     Synthetic.
XX
PN
     WO9405308-A1.
XX
PD
     17-MAR-1994.
XX
PF
     13-AUG-1993;
                    93WO-US007694.
XX
PR
     28-AUG-1992;
                    92US-00936504.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
ΡI
     Williams JI;
XX
DR
     WPI; 1994-100846/12.
XX
PT
     Purifying amphiphilic protein or peptide by solvent extn. - partic. for
PT
     recombinant, ion-channel forming peptide(s) such as magainins, avoids use
PT
     of chaotropic agents.
XX
PS
     Disclosure; Page 124; 135pp; English.
XX
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The sequences given in AAR50336-451 are amphiphilic peptides which were
     isolated by the method of the invention. A material containing
CC
     amphiphilic peptides such as these, was treated with a mixt. of aprotic
CC
     organic solvent and alcohol to form a single miscible solution. This
CC
CC
     solution was then treated with a aqueous solution to form an aqueous
     phase solution containing the peptides and an organic solvent phase, and
CC
     the peptides were isolated from the aqueous phase. The isolated peptides
CC
     may be useful as antibiotic, antimicrobial, antifungal, antiparasitic,
CC
     antitumour, anticancer, and/or antiviral agents for treatment of humans,
CC
     animals or plants. These peptides are esp. ion-channel forming peptides
CC
CC
     which enable biologically active ions to enter cells. (Updated on 25-MAR-
CC
     2003 to correct PN field.)
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
                                                    0;
                                                        Indels
                                                                  0; Gaps
  Matches
             3: Conservative
            1 AKK 3
Qу
              IIII
            1 AKK 3
Db
RESULT 50
AAR51276
     AAR51276 standard; protein; 11 AA.
XX
AC
     AAR51276;
XX
DT
     25-MAR-2003 (revised)
DT
     09-SEP-1994
                 (first entry)
XX
DE
     Meningococcal OMP P1.16 epitope.
XX
KW
     Neisseria meningitidis; meningococcus; outer membrane protein; OMP;
     outer membrane vesicle; lipopolysaccharide; vaccine.
KW
XX
OS
     Synthetic.
XX
PN
     WO9408021-A1.
XX
PD
     14-APR-1994.
XX
     30-JUL-1993;
                    93WO-NL000163.
PF
XX
     02-OCT-1992;
                    92NL-00001716.
PR
XX
     (NEWE-) NEDERLANDEN MIN WELZIJN.
PA
XX
PΙ
     Van Der Ley PA, Poolman JT, Hoogerhout P;
XX
     WPI; 1994-135585/16.
DR
DR
     N-PSDB; AAQ62053.
XX
PT
     New B cell activating molecules from meningococcal lipo:polysaccharide -
     and derived peptide conjugates, outer membrane vesicles etc. useful in
PT
```

```
XX
PS
     Example; Page 25; 62pp; English.
XX
     An oligonucleotide with KpnI sticky ends (AAQ62053) encodes the P1.16
CC
     epitope of Neisseria meningitidis outer membrane protein (OMP). The 3'
CC
     end of the antisense strand overhangs the 5' end of the sense strand by 4
CC
     bases, and the 3' end of the sense strand overhangs the 5' end of the
СC
     antisense strand by 4 bases. Eptiopes encoded by the sense and antisense
CC
     strands are given in AAR51276 and AAR55835, respectively. The
CC
     oligonucleotide was placed in loop 6 of the class I OMP gene, providing a
CC
     new meningococcal strain with an extra epitope for use in vaccines.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches
             3; Conservative
                               0; Mismatches
                                                   0: Indels
                                                                  0; Gaps
                                                                              0;
            8 KDT 10
Qу
              111
Db
            3 KDT 5
RESULT 51
AAR51277
     AAR51277 standard; protein; 11 AA.
XX
AC
    AAR51277;
XX
DT
     25-MAR-2003 (revised)
DT
     09-SEP-1994 (first entry)
XX
DE
     Meningococcal OMP P1.16 epitope.
XX
KW
     Neisseria meningitidis; meningococcus; outer membrane protein; OMP;
KW
     outer membrane vesicle; lipopolysaccharide; vaccine.
XX
OS
     Synthetic.
XX
     WO9408021-A1.
PN
XX
PD
     14-APR-1994.
XX
PF
     30-JUL-1993;
                    93WO-NL000163.
XX
PR
     02-OCT-1992;
                    92NL-00001716.
XX
PA
     (NEWE-) NEDERLANDEN MIN WELZIJN.
XX
     Van Der Ley PA, Poolman JT, Hoogerhout P;
PI
XX
     WPI; 1994-135585/16.
DR
DR
     N-PSDB; AAQ62054.
XX
     New B cell activating molecules from meningococcal lipo:polysaccharide -
PT
```

vaccines effective against several meningococcal immunotypes.

PT

```
PT
     and derived peptide conjugates, outer membrane vesicles etc. useful in
PT
     vaccines effective against several meningococcal immunotypes.
XX
PS
     Example; Page 26; 62pp; English.
XX
     An oligonucleotide with SpeI sticky ends (AAQ62054) encodes the P1.16
CC
     epitope of Neisseria meningitidis outer membrane protein (OMP). The 3'
CC
     end of the antisense strand overhangs the 5' end of the sense strand by 4
CC
     bases, and the 3' end of the sense strand overhangs the 5' end of the
CC
CC
     antisense strand by 4 bases. Eptiopes encoded by the sense and antisense
     strands are given in AAR51277 and AAR55836, respectively. The
CC
     oligonucleotide was placed in loop 5 of the class I OMP gene, providing a
CC
     new meningococcal strain with an extra epitope for use in vaccines.
CC
CC
     (Updated on 25-MAR-2003 to correct PN field.)
XX
     Sequence 11 AA;
SO
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
                                                    0; Indels
             3; Conservative
                                 0; Mismatches
                                                                  0; Gaps
                                                                               0;
            8 KDT 10
Qy
              \mathbf{H}
Db
            3 KDT 5
RESULT 52
AAR82678
     AAR82678 standard; protein; 11 AA.
ID
XX
AC
     AAR82678;
XX
DT
     23-JAN-1996 (first entry)
XX
DE
     V8 fragment of CD45 associating protein pp32.
XX
KW
     CD45; immune system; disease; pp32; T-lymphocyte; T-cell; activation;
     isoform; CD2; phorbol ester; identification; screening;
KW
KW
     monoclonal antibody.
XX
OS
     Homo sapiens.
XX
PN
     WO9521916-A2.
XX
     17-AUG-1995.
PD
XX
PF
     09-FEB-1995;
                    95WO-US001618.
XX
                    94US-00197793.
PR
     14-FEB-1994;
XX
PΑ
     (BADI ) BASF AG.
XX
PΙ
     Schoenhaut D, Ratnofsky S, Meuer S, Schraven B;
XX
DR
     WPI; 1995-293118/38.
     N-PSDB; AAT03910.
DR
XX
```

```
PT
     Nucleic acid encoding a human pp32 protein which associates with CD45 -
PT
     useful for treatment of immune system diseases and in the identification
PT
     of T cell activation inhibitors.
XX
     Example 9; Page 25; 49pp; English.
PS
XX
CC
     pp32 is specifically associated with, and is a potential substrate of
CC
     CD45. pp32 is constitutively phosphorylated on serine in resting T-
CC
     cells. In such cells it exists in two isoforms, pp32 low and pp32 high.
CC
     Both isoforms show rapid changes during T-cell activation. These changes
     take place within five minutes after stimulation of T- lymphocytes with
CC
CC
     monoclonal antibodies specific for CD2 or with Phorbol esters. pp32 is
CC
     useful for treating diseases of the immune system and to identify
CC
     inhibitors of T-cell activation. Peptide fragments of pp32 (AAR82673-81)
CC
     were used to produce degenerate primers (AAT03911-19) which were then
CC
     used to produce a probe to isolate a full length pp32 cDNA clone
XX
SO
     Sequence 11 AA;
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                       Indels
                                                                   0; Gaps
                                                                               0;
            4 ERQ 6
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
Db
            9 ERQ 11
RESULT 53
AAW21496
     AAW21496 standard; peptide; 11 AA.
XX
AC
     AAW21496;
XX
DT
     16-OCT-2003
                  (revised)
DT
     30-JUL-1997
                  (first entry)
XX
DE
     Hepatitis delta antigen derived signal oligopeptide #1.
XX
KW
     Hydrophilic; signal oligopeptide; hydrophilicity maxima; vaccine; SIV;
KW
     competitive inhibitor; feedback regulator; synthesis; gastrin precursor;
KW
     charge; polarity; farnesyl synthetase; plasminogen activator inhibitor 1;
KW
     hydroxymethylglutaryl coenzyme A reductase; glucagon precursor; rhesus;
KW
     gonadoliberin precursor; plasminogen activator inhibitor 2; prorenin;
KW
     Alzheimer amyloid A4; corticotropin releasing factor binding protein;
KW
     apolipoprotein E; herpes virus 1 glycoprotein B; HSV1; human; OMVVS;
KW
     herpes virus 2 glycoprotein B; HSV2; collagenase; apolipoprotein A;
KW
     Treponema pallidum membrane protein; TMPA; islet amyloid polypeptide;
KW
     fibroblast MMP1; schistosoma elastase precursor; schistosomin;
KW
     hepatitis delta antigen; rev protein; HIV; VILV; angiotensinogen.
XX
OS
     Hepatitis D virus.
XX
PN
     WO9519568-A1.
XX
PD
     20-JUL-1995.
XX
```

```
PF
     12-JAN-1995;
                    95WO-US000575.
XX
PR
     14-JAN-1994;
                    94US-00182248.
XX
PΑ
     (RATH/) RATH M.
XX
PΙ
     Rath M;
XX
DR
     WPI; 1995-263953/34.
XX
PT
     Identifying signal oligopeptide(s) in protein sequence(s) - shown as
PT
     regions of max. hydrophilicity, used in modulating communication between
PT
     protein(s).
XX
PS
     Claim 5; Page 72; 88pp; English.
XX
CC
     The sequences given in AAW21201-560 represent hydrophilic signal oligo-
CC
     peptides. These signal oligopeptides are localised on the surface of the
CC
     protein and are represented by the hydrophilicity maxima of the protein.
CC
     These peptides are enriched in charged amino acids arranged with neutral
CC
     spacer amino acids. The specific signal character of these oligopeptides
CC
     is determined by a characteristic combination of conformation and charge
     within the signal sequence. These oligopeptides may be used as vaccines
CC
CC
     in the treatment of human disease, as competitive inhibitors to prevent
CC
     or reduce the metabolic action or interaction of a selected protein by
CC
     blocking its specific signal sequences, or as therapeutic agents to
CC
     function as feedback regulators to reduce synthesis rate of a selected
CC
     protein. These peptides may be modified by omitting one or more amino
CC
     acids at the N- and/or C-terminal, by substituting one or more amino
     acids without consideration of charge and polarity, by substituting one
CC
CC
     or more amino acids with amino acid residues with similar charge and/or
CC
     polarity, by omitting one or more amino acids or a combination of these.
CC
     (Updated on 16-OCT-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
Qy
            7 RKD 9
              \mathbf{I}
Db
            3 RKD 5
RESULT 54
AAW21220
ID
     AAW21220 standard; peptide; 11 AA.
XX
AC
     AAW21220;
XX
DT
     29-JUL-1997
                 (first entry)
XX
DE
     Farnesyl synthetase derived signal oligopeptide #20.
XX
KW
     Hydrophilic; signal oligopeptide; hydrophilicity maxima; vaccine; SIV;
     competitive inhibitor; feedback regulator; synthesis; gastrin precursor;
KW
```

```
KW
     charge; polarity; farnesyl synthetase; plasminogen activator inhibitor 1;
ΚW
     hydroxymethylglutaryl coenzyme A reductase; glucagon precursor; rhesus;
KW
     gonadoliberin precursor; plasminogen activator inhibitor 2; prorenin;
KW
     Alzheimer amyloid A4; corticotropin releasing factor binding protein;
KW
     apolipoprotein E; herpes virus 1 glycoprotein B; HSV1; human; OMVVS;
KW
     herpes virus 2 glycoprotein B; HSV2; collagenase; apolipoprotein A;
KW
     Treponema pallidum membrane protein; TMPA; islet amyloid polypeptide;
KW
     fibroblast MMP1; schistosoma elastase precursor; schistosomin;
KW
     hepatitis delta antigen; rev protein; HIV; VILV; angiotensinogen.
XX
OS
     Homo sapiens.
XX
PN
     WO9519568-A1.
XX
     20-JUL-1995.
PD
XX
PF
     12-JAN-1995;
                    95WO-US000575.
XX
PR
     14-JAN-1994;
                    94US-00182248.
XX
PA
     (RATH/) RATH M.
XX
PΙ
     Rath M;
XX
DR
     WPI; 1995-263953/34.
XX
PT
     Identifying signal oligopeptide(s) in protein sequence(s) - shown as
PT
     regions of max. hydrophilicity, used in modulating communication between
PT
     protein(s).
XX
     Claim 5; Page 26; 88pp; English.
PS
XX
CC
     The sequences given in AAW21201-560 represent hydrophilic signal oligo-
CC
     peptides. These signal oligopeptides are localised on the surface of the
CC
     protein and are represented by the hydrophilicity maxima of the protein.
CC
     These peptides are enriched in charged amino acids arranged with neutral
CC
     spacer amino acids. The specific signal character of these oligopeptides
CC
     is determined by a characteristic combination of conformation and charge
CC
     within the signal sequence. These oligopeptides may be used as vaccines
CC
     in the treatment of human disease, as competitive inhibitors to prevent
CC
     or reduce the metabolic action or interaction of a selected protein by
     blocking its specific signal sequences, or as therapeutic agents to
CC
CC
     function as feedback regulators to reduce synthesis rate of a selected
CC
     protein. These peptides may be modified by omitting one or more amino
CC
     acids at the N- and/or C-terminal, by substituting one or more amino
CC
     acids without consideration of charge and polarity, by substituting one
CC
     or more amino acids with amino acid residues with similar charge and/or
CC
     polarity, by omitting one or more amino acids or a combination of these
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2;
                                                   Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 0; Mismatches
                                                   0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
```

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RESULT 55
AAR76917
     AAR76917 standard; peptide; 11 AA.
TD
XX
     AAR76917;
AC
XX
DT
     08-MAR-1996 (first entry)
XX
     Thymosin alpha-1 peptide analogue #23.
DE
XX
     Thymosin alpha-1; analogue; immune system modulator; alpha-interferon;
ΚW
     gamma-interferon; macrophage migration inhibitory factor; T-cell marker;
KW
     interleukin-2 receptor; helper T-cell; solid phase synthesis;
KW
     immunodeficiency; therapy; AIDS; HIV; immunodepravation.
KW
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "optionally amidated Pro or amidated Gly"
XX
PN
     WO9520602-A2.
XX
PD
     03-AUG-1995.
XX
                    95WO-US000617.
PF
     18~JAN-1995;
XX
                    94US-00188232.
PR
     28-JAN-1994;
XX
     (ALPH-) ALPHA 1 BIOMEDICALS INC.
PA
XX
PI
     Wang S;
XX
DR
     WPI; 1995-275412/36.
XX
PT
     New thymosin alpha-1 peptide analogues - for the treatment of
PT
     immunodeficiency diseases and the reconstitution of immune functions in
PT
     immuno-depressed patients.
XX
     Claim 7; Page ?; 24pp; English.
PS
XX
     The sequences represented by AAR76895-R76935 are thymosin alpha-1
CC
     analogues. Thymosin alpha-1 is an immune system modulator. Thymosin alpha
CC
CC
     -1 activity includes, stimulation of alpha- and gamma-interferon
CC
     production, increasing macrophage migration inhibitory factor production,
CC
     inducing expression of T-cell markers (including interleukin-2
CC
     receptors), and improving helper T-cell activity. These sequences
CC
     function like natural thymosin alpha-1, and are easy to produce. These
CC
     sequences were synthesised by solid phase synthesis on a 4-
CC
     methylbenzhydrylamine resin. The peptides were cleaved from this resin
     using trifluoromethane sulfonic acid (TFS). These sequences can be used
CC
CC
     to reconstitute immune functions in immunodeprived and immunodepressed
     patients. They can also be used in the treatment of immunodeficiency
CC
CC
     diseases
```

```
XX
     Sequence 11 AA;
SQ
  Query Match
                           27.3%; Score 3; DB 2; Length 11;
                           100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches
                                                     0; Indels
                                                                   0; Gaps
                                                                                0;
            2 KKE 4
Qу
              \mathbf{I} \mathbf{I} \mathbf{I}
            1 KKE 3
Db
RESULT 56
AAR84537
     AAR84537 standard; peptide; 11 AA.
XX
AC
     AAR84537;
XX
DT
     06-JUN-1996 (first entry)
XX
     Hepatitis C virus core antigen (amino acids 8-18).
DE
XX
KW
     Tailor-made; antigen/antibody specificity exchanger; HIV infection;
KW
     heavy chain; complementarity determining region; CDR;
KW
     human immunodeficiency virus; variable loop 3 domain; redirecting;
KW
     epitope; HCV; hepatitis C virus; core protein.
XX
OS
     Synthetic.
XX
PN
     WO9529938-A1.
XX
PD
     09-NOV-1995.
XX
PF
     27-APR-1995;
                     95WO-SE000468.
XX
PR
     28-APR-1994;
                     94SE-00001460.
XX
PA
     (FERR ) FERRING AB.
XX
PI
     Saellberg M;
XX
DR
     WPI; 1995-393040/50.
XX
PT
     Antiqen-antibody specificity exchanger - used in a method to redirect a
PT
     patients antibodies against polio: virus to fight HIV infection in the
PT
     patient.
XX
PS
     Claim 7; Page 35; 38pp; English.
XX
CC
     An antigen/antibody specificity exchanger comprises an antibody- derived
CC
     amino acid sequence (A) which specifically binds to a particular antigen,
CC
     linked to an amino acid sequence (C) to which a particular antibody
CC
     binds. The present sequence is a preferred example of a type (C) sequence
     ; it is an epitope from hepatitis C virus. Preferred type (A) sequences
CC
CC
     are complementarity determining regions from e.g. anti-HIV-1 antibodies.
     The specificity exchanger can redirect antibodies already present in a
CC
```

patient and raised against a particular antigen, to fight a different

```
CC
     be redirected to fight HIV
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.8e+03;
             3; Conservative 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
                                                 0; Indels
            6 QRK 8
Qу
              \mathbf{H}
            1 QRK 3
Db
RESULT 57
AAR90259
     AAR90259 standard; peptide; 11 AA.
XX
AC
     AAR90259;
XX
DT
     10-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #111 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
     Modified-site
FT
FT
                     /note= "N-terminal amino group is mono- or di-substd. by
FT
                     lipophilic moiety, esp. octanoyl"
XX
PN
     WO9519370-A1.
XX
PD
     20-JUL-1995.
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PI
     Kari U, Williams TJ, Mclane M;
XX
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     qps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Claim 25; Page 108; 139pp; English.
XX
     The present peptide is a specific example corresp. to a highly generic
CC
```

antigen. For example, it was shown that anti-poliovirus antibodies could

```
formula for ion channel forming peptides (ionophores). These ionophores
CC
     are known to have a broad range of potent antibiotic activity against
CC
     microorganisms including gram-positive and gram-negative bacteria, fungi,
     viruses, protozoa and parasites. N-terminal modification (pref. mono-
CC
     substn. by octanoyl) to produce an ion-channel forming peptide having a
CC
     lipophilic N-terminus increases the biological activity of the peptides
CC
CC
     against target cells, viruses and virally-infected cells, compared to
     peptides substd. with an acetyl group at the N-terminus. Compositions
CC
CC
     comprising the peptides with lipophilic modifications are claimed for
CC
     inhibiting growth of a target cell, virus or virally-infected cell
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                                  0;
                                                        Indels
                                                                     Gaps
                                                                              0;
            1 AKK 3
Qy
              111
Db
            1 AKK 3
RESULT 58
AAR91788
ID
     AAR91788 standard; peptide; 11 AA.
XX
AC
     AAR91788;
XX
DT
     11-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #123 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "N-terminal amino group is mono-substd. by
FT
                     octanovl"
FT
     Modified-site
FT
                     /note= "C-terminal amide"
XX
PN
     WO9519370-A1.
XX
PD
     20-JUL-1995.
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PA
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
```

```
DR
     WPI; 1995-263826/34.
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
PT
     gps. - useful e.g. as antiviral, antibacterial, antiparasitic or
PT
     antitumour agents.
XX
PS
     Example 1; Page 111; 139pp; English.
XX
CC
     Various ion channel forming peptides (ionophores) in C-terminal amide
CC
     form were modified by N-terminal substn. with a lipophilic group and then
     tested for activity against S.aureus ATCC 25923 (S), P.aeruginosa ATCC
CC
CC
     27853 (P), E.coli ATCC 25922 (E) and C.albicans (C). Results indicated
CC
     that when a biologically active peptide is substd. with a lipophilic
CC
     moiety, the peptide has increased activity against a range of
CC
     microorganisms. Compositions comprising such peptides with lipophilic
     modifications are claimed for inhibiting growth of a target cell, virus
CC
CC
     or virally-infected cell. Minimum inhibitory concentrations (in
CC
     microgram/ml) for the present peptide against S, P, E and C,
CC
     respectively, were: 32, 16, 32 and 32
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                                              0;
                                                      Indels
                                                                  0; Gaps
Qy
            1 AKK 3
              111
Db
            7 AKK 9
RESULT 59
AAR91787
ID
     AAR91787 standard; peptide; 11 AA.
XX
AC
     AAR91787;
XX
DT
     11-JUL-1996 (first entry)
XX
DE
     Ion-channel forming peptide #122 with lipophilic N-terminal group.
XX
KW
     Ion channel forming peptide; lipophilic; N-terminal modification;
KW
     magainin; inhibition; cell growth; viral replication; ionophore;
KW
     membrane permeability; antimicrobial; anti-bacterial; antibiotic;
KW
     anti-fungal; anti-viral; spermicidal; anti-tumour; anti-parasitic.
XX
OS
     Synthetic.
XX
FΗ
     Key
                     Location/Qualifiers
FT
    Modified-site
FT
                     /note= "N-terminal amino group is mono-substd. by
FT
                     octanoyl"
FT
    Modified-site
                     11
FT
                     /note= "C-terminal amide"
XX
PN
    WO9519370-A1.
```

XX

```
XX
PD
     20-JUL-1995.
XX
PF
     18-JAN-1995;
                    95WO-US000714.
XX
PR
     18-JAN-1994;
                    94US-00184462.
XX
PΑ
     (MAGA-) MAGAININ PHARM INC.
XX
PΙ
     Kari U, Williams TJ, Mclane M;
XX
     WPI; 1995-263826/34.
DŔ
XX
PT
     Ion channel-forming amphiphilic peptide(s) with N-terminal lipophilic
     qps. - useful e.q. as antiviral, antibacterial, antiparasitic or
PT
PТ
     antitumour agents.
XX
     Example 1; Page 111; 139pp; English.
PS
XX
CC
     Various ion channel forming peptides (ionophores) in C-terminal amide
CC
     form were modified by N-terminal substn. with a lipophilic group and then
     tested for activity against S.aureus ATCC 25923 (S), P.aeruginosa ATCC
CC
CC
     27853 (P), E.coli ATCC 25922 (E) and C.albicans (C). Results indicated
CC
     that when a biologically active peptide is substd. with a lipophilic
CC
     moiety, the peptide has increased activity against a range of
CC
     microorganisms. Compositions comprising such peptides with lipophilic
CC
     modifications are claimed for inhibiting growth of a target cell, virus
CC
     or virally-infected cell. Minimum inhibitory concentrations (in
CC
     microgram/ml) for the present peptide against S, P, E and C,
CC
     respectively, were: 32, 32, 64 and 64
XX
     Sequence 11 AA;
SO
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              111
            7 AKK 9
Db
RESULT 60
AAR87902
     AAR87902 standard; peptide; 11 AA.
XX
AC
     AAR87902;
XX
DT
     28-FEB-1996 (first entry)
XX
DE
     Neuropeptide Y agonist peptide.
XX
KW
     neuropeptide Y; NPY; agonist; hypertensive; vasoconstrictor;
KW
     colon relaxing; gastric emptying diminution; eating disorder;
KW
     anorexia nervosa.
XX
OS
     Synthetic.
```

```
XX
                     Location/Qualifiers
FΗ
     Key
FT
     Modified-site
                     /label= OTHER
FT
                     /note= "8-amino-octanoic acid residue"
FT
FT
     Modified-site
                     /note= "Tyr-NH2"
FT
XX
     US5395823-A.
PN
XX
     07-MAR-1995.
PD
XX
                    93US-00032526.
PF
     15-MAR-1993;
XX
                    88US-00237591.
     26-AUG-1988;
PR
                    89US-00384373.
     24-JUL-1989;
PR
                    90US-00631755.
PR
     21-DEC-1990;
     18-OCT-1991;
                    91US-00782890.
PR
PR
     05-AUG-1992;
                    92US-00925546.
XX
PΑ
     (RICH ) MERRELL DOW PHARM INC.
XX
PΙ
     Krstenansky JL;
XX
     WPI; 1995-114851/15.
DR
XX
PT
     New peptide agonists of neuropeptide Y - useful for increasing blood
PT
     pressure and treating eating disorders such as anorexia nervosa.
XX
     Example 9; Col 9; 7pp; English.
PS
XX
     The patent relates to a new group of peptides which have neuropeptide Y
CC
CC
     agonist action. The peptides have hypertensive activity, vasoconstricting
CC
     activity, colon relaxing activity and gastric emptying diminution
CC
     activity. They are of particular use in treatment of eating disorders
CC
     such as anorexia nervosa. The present sequence is that of a peptide
CC
     prepared in the Examples of the patent, but it does not appear to fit the
CC
     generic formulae of the active compounds
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3: Conservative 0: Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 RQR 7
Qy
              \perp
Db
            8 ROR 10
RESULT 61
AAW49555
ID
     AAW49555 standard; peptide; 11 AA.
XX
AC
     AAW49555;
XX
DT
     05-JUN-1998 (first entry)
```

```
XX
DE
     Human leucocyte antigen DQ4 binding peptide #446.
XX
     Human leucocyte antigen; HLA-DQ4; combinatorial library;
KW
ΚW
     autoimmune disease; chronic articular rheumatism.
XX
OS
     Synthetic.
XX
     JP08151396-A.
PN
XX
PD
     11-JUN-1996.
XX
     28-NOV-1994;
PF
                    94JP-00292657.
XX
PR
     28-NOV-1994;
                    94JP-00292657.
XX
PA
     (TEIJ ) TEIJIN LTD.
XX
     WPI; 1996-329479/33.
DR
XX
PT
     HLA-binding oligopeptide and an immuno:regulator contg it - used in the
PT
     treatment of auto:immune disease.
XX
PS
     Claim 4; Page 49; 61pp; Japanese.
XX
CC
     This peptide is an example of a peptide which binds to a human leucocyte
CC
     antigen HLA-DQ4 molecule. The peptide was isolated from a phagemid
CC
     combinatorial library comprising the sequence AAV05953, by screening with
CC
     an HLA-DQ4 molecule. The peptide is used for the treatment of autoimmune
CC
     disease, or especially for treatment of viral diseases
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
             3; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            5 RQR 7
              | \cdot |
            6 RQR 8
Db
RESULT 62
AAR96835
     AAR96835 standard; peptide; 11 AA.
XX
AC
     AAR96835;
XX
     29-NOV-1996 (first entry)
DT
XX
     Human neurofilament triplet h fragment, homologous to Neisseria Iga-
DΕ
DE
     alpha1.
XX
KW
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
KW
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
KW
     human neurofilament triplet h protein; Nfh; Neisseria gonorrhoeae; MS11.
XX
```

```
OS
     Homo sapiens.
XX
FH
     Key
                     Location/Qualifiers
FT
     Region
                     1. .3
FT
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
                     Iga-alpha1"
FT
     Region
                     5. .7
FT
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
                     Iga-alpha1"
                     10. .11
FT
     Region
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
FT
                     Iga-alpha1"
XX
     WO9609395-A2.
PN
XX
PD
     28-MAR-1996.
XX
PF
     21-SEP-1995;
                    95WO-EP003726.
XX
     21-SEP-1994;
                    94DE-04433708.
PR
XX
PA
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
XX
PΙ
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PΙ
     Oetzelberger KB;
XX
DR
     WPI; 1996-188456/19.
XX
PT
     Medicaments for treating auto-immune or viral diseases - contq.
PT
     substances interfering with bacterial poly:protein function.
XX
PS
     Claim 32; Fig 2; 117pp; German.
XX
CC
     The present sequence from human neurofilament triplet h protein has
CC
     homology to a cleavage product from the Iga-alphal domain of the
CC
     precursor of IqA-protease polyprotein (IPP) of Neisseria gonorrhoeae
CC
     strain MS11. The Neisseria IPP has been implicated in rheumatoid
CC
     arthritis and other auto-immune diseases. The polyprotein also activates
CC
     proviruses, including HIV. Substances which interfere with the function
     of IPP from Neisseria will be useful for treating associated autoimmune
CC
     diseases and viral infections. Peptides comprising the homology region
CC
CC
     sequences, whether from Neisseria or from humans, are claimed
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
 Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RQR 7
Qу
             -111
            2 RQR 4
Db
RESULT 63
AAR85318
    AAR85318 standard; peptide; 11 AA.
```

```
XX
AC
     AAR85318;
XX
DT
     25-MAR-2003
                   (revised)
DT
     19-AUG-1996
                   (first entry)
XX
DΕ
     Human retinoic acid receptor RAR-beta (human liver HAP) peptide-2.
XX
KW
     HAP; liver; hepatoma; retinoic acid receptor; RAR-beta; psoriasis;
KW
     atherosclerosis; rheumatoid arthritis.
XX
OS
     Homo sapiens.
XX
PN
     US5468617-A.
XX
     21-NOV-1995.
PD
XX
PF
     02-FEB-1994;
                    94US-00190555.
XX
PR
     16-DEC-1987;
                     87US-00133687.
                     87US-00134130.
PR
     17-DEC-1987;
PR
     20-JUN-1988;
                     88US-00209009.
PR
     30-NOV-1988;
                     88US-00278136.
     30-MAR-1989;
                     89US-00330405.
PR
PR
     21-AUG-1991;
                     91US-00751612.
PR
     30-MAR-1992;
                     92US-00860577.
PR
     11-DEC-1992;
                     92US-00989902.
PR
     22-JUL-1993;
                     93US-00095706.
XX
PΑ
     (TIOL/) TIOLLAIS P.
PA
     (DEJE/) DEJEAN A.
     (KRUS/) KRUST A.
PA
     (PETK/) PETKOVICH M.
PA
PA
     (DTHE/) BLAUDIN DE THE H.
PΑ
     (MARC/) MARCHIO A.
PA
     (BRAN/) BRAND N.
PΑ
     (CHAM/) CHAMBON P.
XX
PI
     Brand N, Chambon P, Blaudin De The H,
                                               Marchio A, Dejean A;
PΙ
     Petkovich M, Krust A, Tiollais P;
XX
DR
     WPI; 1996-010094/01.
XX
PT
     Method for screening for retinoic acid receptor-beta (ant)agonists -
PT
     useful for blood testing and for treatment of rheumatoid arthritis,
PT
     psoriasis, atherosclerosis etc.
XX
PS
     Claim 7; Col 39-40; 35pp; English.
XX
     This RAR-beta peptide-2 fragment is part of a protein which may be
CC
CC
     expressed recombinantly in bacterial host cells such as Escherichia coli
CC
     TG-1. The protein, which is free from human, blood-derived protein, forms
CC
     a complex with an agonist or antagonist. The protein may be used in a
CC
     novel method for assaying a fluid for the presence of an agonist or
CC
     antagonist to retinoic acid receptor, RAR-beta. (Updated on 25-MAR-2003
CC
     to correct PF field.)
XX
```

```
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
            3; Conservative
                                 0: Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            2 KKE 4
              \Pi\Pi
Db
            7 KKE 9
RESULT 64
AAW18499
ΙD
     AAW18499 standard; peptide; 11 AA.
XX
AC
     AAW18499;
XX
     19-FEB-1998 (first entry)
DT
XX
DE
     Amino-terminal peptide 1 associated with novel helicase.
XX
KW
     Nucleic acid binding protein; helicase; leflunomide; assaying;
KW
     4-(N-(4-trifluoromethylphenyl)-5-methyl-isoxazole; identification;
KW
     anticancer; antiatherosclerotic; immunosuppressant; sequencing;
KW
     antiinflammatory; antiviral; antifungal; antibacterial; treatment;
KW
     Alzheimer's disease; cancer; rheumatism; arthrosis; determination;
KW
     atherosclerosis; osteoporosis; acute infection; chronic infection;
KW
     autoimmune disease; diabetes; organ transplant; isolation;
KW
     amino-terminal.
XX
OS
     Homo sapiens.
XX
PN
     DE19545126-A1.
XX
PD
     05-JUN-1997.
XX
PF
     04-DEC-1995;
                    95DE-01045126.
XX
PR
     04-DEC-1995;
                    95DE-01045126.
XX
PA
     (FARH ) HOECHST AG.
XX
PΙ
     Kirschbaum B, Muellner S, Bartlett R;
XX
     WPI; 1997-299388/28.
DR
XX
PT
```

New nucleic acid binding protein with helicase activity - is strongly induced by leflunomide, used to isolate specific binding RNA and for identifying substances with anticancer, antiviral etc. activities.

Example 4; Page 15; 28pp; German.

PT

PT

XX PS

CC

CC

CC

CC

The present sequence is an amino-terminal peptide associated with a novel nucleic acid binding protein with helicase activity, the mRNA of which (or its translation products) is strongly expressed in presence of leflunomide, i.e. 4-(N-(4-trifluoromethylphenyl)-5-methyl-isoxazole, or a compound with similar activity. The helicase can be used in assay systems

```
CC
     antiinflammatory, antiviral, antifungal and antibacterial agents, e.g. to
CC
     treat Alzheimer's disease, cancer, rheumatism, arthrosis,
CC
     atherosclerosis, osteoporosis, acute/chronic infections, autoimmune
CC
     disease, diabetes and complications of organ transplants, and to isolate
CC
     or determine the sequences of specific binding RNA
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
                                0; Mismatches
                                                                  0; Gaps
             3; Conservative
                                                   0; Indels
                                                                              0;
            2 KKE 4
Qу
              \perp
Db
            9 KKE 11
RESULT 65
AAW24438
ID
     AAW24438 standard; peptide; 11 AA.
XX
АC
     AAW24438;
XX
DT
     30-SEP-1997 (first entry)
XX
DE
     Nucleic acid (NA) binding peptide used in NA delivery to cells.
XX
     Nucleic acid transporter; gene therapy; binding complex; lysis agent;
KW
KW
     JTS-1; K8; alpha helix; endosome; lysosome; nucleus targeting.
XX
OS
     Synthetic.
XX
PN
     WO9640958-A1.
XX
PD
     19-DEC-1996.
XX
PF
     23-APR-1996;
                    96WO-US005679.
XX
PR
     07-JUN-1995;
                    95US-00484777.
XX
PΑ
     (BAYU ) BAYLOR COLLEGE MEDICINE.
XX
PI
     Smith LC, Sparrow JT, Woo SL;
XX
DR
     WPI; 1997-052345/05.
XX
PΤ
     Nucleic acid transporter useful in gene therapy - contains binding
PT
     complex associated with surface and nuclear ligands and lysis agent.
XX
PS
     Disclosure; Page 49; 125pp; English.
XX
CC
     AAW24434-W24459 are nucleic acid (NA) binding peptides, capable of both
     condensing and stabilising a NA. The peptides can be conjugated to a
CC
CC
     lytic peptide to form a nucleic acid transporter system. The lysis agent
     forms an alpha-helical structure. The transporter system is used to
CC
CC
     deliver nucleic acid to a cell and for treating humans by gene therapy.
```

to identify/discover anticancer, antiatherosclerotic, immunosuppressing,

```
the binding molecules, delivery of the nucleic acid is enhanced. Specific
CC
     lysis agents are capable of releasing the nucleic acid into the cellular
CC
     interior from the endosome. Release is efficient without
CC
     endosomal/lysosomal degradation. Once released the binding complexes help
CC
CC
     target the nucleic acid to the nucleus
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            1 AKK 3
Qу
             3 AKK 5
Db
RESULT 66
AAW34642
     AAW34642 standard; peptide; 11 AA.
ID
XX
AC
     AAW34642;
XX
     02-MAR-1998 (first entry)
DT
XX
DΕ
     Control peptide.
XX
     Occludin; inhibitor; human; drug absorption; drug delivery; gene therapy;
KW
     tissue permeability; cell adhesion; antibody.
KW
XX
OS
     Synthetic.
XX
PN
     WO9733605-A1.
XX
     18-SEP-1997.
PD
XX
                    97WO-US005809.
PF
     14-MAR-1997;
XX
     15-MAR-1996;
                    96US-0013625P.
PR
XX
PA
     (UYYA ) UNIV YALE.
XX
PΙ
     Anderson JM, Van Itallie CM;
XX
     WPI; 1997-470640/43.
DR
XX
PT
     Isolated human occludin protein - useful for increasing drug delivery
     across endothelial or epithelial barriers, or for reducing tissue
PT
PT
     permeability.
XX
     Disclosure; Page 36; 49pp; English.
PS
XX
     This control peptide was used in experiments to demonstrate inhibition of
CC
     occludin-dependent intercellular adhesion using extracellular loop
CC
     peptides corresponding to the N-terminal half of occludin extracellular
CC
     loop 1 (see AAW34639) and the C-terminal half of extracellular loop 1
CC
```

By taking advantage of the characteristics of both the lysis agents and

CC

```
(see AAW34640. Inhibitors of human occludin inhibitors can be used to
CC
     enhance delivery of drugs (or gene therapy vectors) by increasing
CC
     absorption across endothelial or epithelial barriers, i.e. transmucosal
CC
     or transvascular drug delivery. Inhibitors include occludin surface loop
CC
     peptides that inhibit adhesion and/or barrier properties, or antibodies
CC
     that interact with occludin or occludin receptors
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
                                                   0;
            3; Conservative 0; Mismatches
                                                        Indels
                                                                              0;
  Matches
                                                                  0; Gaps
            7 RKD 9
Qу
              111
            7 RKD 9
Db
RESULT 67
AAW09909
ID
     AAW09909 standard; peptide; 11 AA.
XX
AC
     AAW09909;
XX
     16-OCT-1997 (first entry)
DT
XX
     Prostate specific membrane antigen peptide PSM-P26.
DE
XX
     Prostate specific membrane antigen; PSMA; prostate specific antigen; PSA;
KW
     prostate cancer; adoptive cellular immunotherapy; therapy; vaccine.
KW
XX
OS
     Homo sapiens.
XX
     WO9704802-A1.
PN
XX
PD
     13-FEB-1997.
XX
PF
     29-JUL-1996;
                    96WO-US012389.
XX
PR
     31-JUL-1995;
                    95US-00509254.
XX
PA
     (PACI-) PACIFIC NORTHWEST CANCER FOUND.
XX
PΙ
     Murphy GP, Boynton AL, Tjoa BA;
XX
DR
     WPI; 1997-145375/13.
XX
PT
     Use of dendritic cells for prostate cancer immuno: therapy - the cells are
PT
     exposed to prostate cancer antigen, then administered to the patient
PT
     where they activate and proliferate T-cells.
XX
PS
     Claim 3; Page 47; 69pp; English.
XX
CC
     Peptide PSM-P26 (AAW09909) corresponds to amino acid residues 398-408 of
     prostate specific membrane antigen (PSMA). A method for producing a
CC
     cancer growth inhibiting response comprises exposing human dendritic
CC
     cells (DCs) to PSM-P26 or other PSMA or prostate specific antigen
CC
```

```
CC
     peptides (see also AAW09889-908 and AAW09910-26), and then administering
CC
     the DCs to a prostate cancer patient to activate T cell responses in
CC
     vivo. Alternatively, the T cell response is activated in vitro and the T
CC
     cells are then administered to the patient. In either case, the DCs are
CC
     used to elicit an immunotherapeutic growth inhibiting response against a
CC
     primary or metastatic prostate tumour. PSM-P26 was selected to be
CC
     presented by DCs to activate T cells of a patient which match the All
CC
     haplotype
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches
            3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            2 KKE 4
Qу
              | \cdot |
Db
            9 KKE 11
RESULT 68
AAW10140
ID
     AAW10140 standard; peptide; 11 AA.
XX
AC
     AAW10140;
XX
DT
     25-MAR-2003
                  (revised)
DT
     02-OCT-1997
                  (first entry)
XX
DΕ
     Hepatitis C virus peptide antigen IIA.
XX
KW
     Antibody; HCV; immunoassay; vaccine; mimic.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Modified-site
FT
                     /note= "H or a linker arm by which the peptide can be
FT
                     attached to a carrier or solid phase comprising at least
FT
                     one amino acid and as many as 60, most frequently 1-20
FT
                     amino acids, such as Cys, Lys, Tyr, Glu or Asp, or
FT
                     chemical groups such as biotin or thioglycolic acid; can
FT
                     be modified by acetylation"
FT
     Modified-site
FT
                     /note= "A bond or a linker arm by which the peptide can
FT
                     be attached to a carrier or solid phase comprising at
FT
                     least one amino acid and as many as 60 amino acids, most
FT
                     frequently 1-10 amino acids, such as Cys, Lys, Tyr, Asp,
FT
                     or chemical groups such as biotin or thioglycolic acid;
FΤ
                     and attached on to that is NH2, OH or a linkage involving
FT
                     either of these two groups"
XX
PN
     EP754704-A2.
XX
PD
     22-JAN-1997.
XX
PF
     14-DEC-1990;
                    96EP-00201157.
```

```
XX
PR
     14-DEC-1990;
                    90EP-00124241.
XX
     (INNO-) INNOGENETICS NV.
PΑ
XX
PΙ
     Deleys RJ, Pollet D, Maertens G, Van Heuverswyn H;
XX
     WPI; 1997-089256/09.
DR
XX
PT
     Hepatitis C virus peptide mimics - for use in immunoassays, vaccines,
PT
XX
     Claim 2; Page 38; 65pp; English.
PS
XX
     The present sequence represents a novel synthetic Hepatitis C virus (HCV)
CC
     antigen IIA for the detection of antibodies. The peptide contains
CC
     modifications at the N- and C-terminal (see features table) with the
CC
CC
     condition that if the modification represents an amino acid(s), that they
     are different from any naturally occurring HCV flanking regions. The
CC
CC
     peptide represents an HCV peptide mimic and may be used as an immunoassay
     reagent for detecting antibodies to HCV; for incorporation into vaccines
CC
     against HCV; and for raising antibodies against HCV. (Updated on 25-MAR-
CC
CC
     2003 to correct PF field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
            6 QRK 8
Qу
              111
Db
            1 QRK 3
RESULT 69
AAW62116
ID
     AAW62116 standard; peptide; 11 AA.
XX
AC
     AAW62116;
XX
DT
     16-SEP-1998 (first entry)
XX
DE
     Human MDM2 binding peptide 5.
XX
KW
     Identification; ligand; biological activity; target-binding;
     drug screening; library; inhibitory ligand.
KW
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
PN
     WO9819162-A1.
XX
PD
     07-MAY-1998.
XX
     31-OCT-1997;
                    97WO-US019638.
PF.
XX
```

```
PR
     31-OCT-1996;
                    96US-00740671.
XX
PA
     (NOVA-) NOVALON PHARM CORP.
XX
PΙ
     Fowlkes DM, Kay BK, Frelinger JA, Hyde-Deruyscher RP;
XX
DR
     WPI; 1998-272389/24.
XX
PT
     Identifying ligands which mediate biological activity of a protein - by
PT
     identifying target-binding ligands and screening a library for ligands
     which inhibit target-binding ligand mediated activity.
PT
XX
PS
     Example 3; Page 93; 143pp; English.
XX
     A method has been developed for identifying a ligand which mediates the
CC
     biological activity of a target protein (T) by inhibiting the binding of
CC
CC
     (T) to a binding partner. The method comprises: (a) screening a first
CC
     combinatorial library comprising first member ligands for binding to the
CC
     target-binding ligands (TBLs), to identifying one or more TBLs; (b)
CC
     screening a second library comprising second member ligands for the
CC
     ability to inhibit the binding of one or more of the TBLs to the target
     protein, and so obtaining one or more inhibitory ligands; and (c)
CC
CC
     determining which of the inhibitory ligands can mediate a biological
CC
     activity of the target protein. The present sequence represents a
CC
     potential binding peptide for human MDM2 from an example of the present
CC
     invention. The method can be used for identifying drugs which can mediate
CC
     the biological activity of a target protein. It can be used to identify
CC
     the biological activity of a target protein whose biological function is
CC
     not known and perhaps cannot be determined directly. The method can also
CC
     be used to identify new inhibitory ligands of specific target proteins.
CC
     The method provides high throughput screens which are essentially
CC
     identical for similar and dissimilar targets, bypassing the need to
CC
     develop distinct assays for biochemically diverse targets
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
 Matches
            3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            2 KKE 4
Qу
              \perp
            8 KKE 10
Db
RESULT 70
AAW66523
ID
    AAW66523 standard; peptide; 11 AA.
XX
AC
    AAW66523;
XX
DT
     25-NOV-1998
                 (first entry)
XX
DE
    Amphiphilic peptide.
XX
KW
    magainin; analogue; antimicrobial; antitumour; wound healing; CPF;
KW
     amphiphilic; XPF peptide.
```

```
XX
     Synthetic.
OS
XX
     US5792831-A.
ΡN
XX
     11-AUG-1998.
PD
XX
                    94US-00343882.
     17-NOV-1994;
PF
XX
     08-FEB-1990;
                    90US-00476629.
PR
     14-MAY-1990;
                    90US-00522688.
PR
                    92US-00874685.
     28-APR-1992;
PR
     05-OCT-1993;
                    93US-00133740.
PR
XX
     (MAGA-) MAGAININ PHARM INC.
PA
XX
PΙ
     Maloy WL;
XX
DR
     WPI; 1998-456190/39.
XX
PT
     Magainin peptide analogues - useful as antimicrobial or antitumour
PT
     agents, etc.
XX
PS
     Disclosure; Col 20; 25pp; English.
XX
CC
     The invention relates to analogues of a magainin I or II, D-form
CC
     analogues, deletion analogues or related peptides. It also relates to
CC
     basic polypeptides having at least 16 amino acids, including at least 8
     hydrophobic amino acids and at least 8 hydrophilic amino acids. The
CC
     peptides may be used as antimicrobial agents, antiviral agents,
CC
CC
     antibiotics, antitumour agents, antiparasitic agents, spermicides,
CC
     preservatives or sterilants, or agents for promoting wound healing. The
CC
     present sequence represents a specific example of a peptide disclosed in
     the specification
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
Qу
              \perp
Db
            1 AKK 3
RESULT 71
ID
     AAW80589 standard; peptide; 11 AA.
XX
AC
     AAW80589;
XX
DT
     18-DEC-1998 (first entry)
XX
     src-family tyrosine kinase peptide fragment.
DE
XX
KW
     src-family tyrosine kinase; serine phosphorylation-mediated degradation;
```

```
KW
     mutation; T cell activation; immune response; screening; cancerous cell;
     therapy; immunity; allogenic transplant; xenogeneic organ transplant.
KW
XX
OS
     Mus sp.
XX
                     Location/Qualifiers
FH
     Key
     Misc-difference 8
FT
                     /note= "can be replaced with Ala"
FT
FT
     Misc-difference 9
                     /note= "can be replaced with Ala"
FT
XX
     WO9846996-A2.
PN
XX
PD
     22-OCT-1998.
XX
PF
     10-APR-1998;
                    98WO-IB000801.
XX
                    97US-0041878P.
PR
     11-APR-1997;
XX
PA
     (ROBA-) ROBARTS RES INST JOHN P.
XX
PΙ
     Madrenas J;
XX
DR
     WPI; 1998-583294/49.
XX
     Detection of levels of T cell activation - by measuring increase in
PT
PT
     amount of serine phosphorylated Ick relative to total Ick as indicative
PT
     of increased T cell activation.
XX
PS
     Claim 23; Page 27; 48pp; English.
XX
CC
     This represents a peptide fragment of the src-family tyrosine kinase
     polypeptide. The invention provides src-family tyrosine kinase peptide
CC
     fragments (AAW80586 to AAW80591), which on mutation reduces the serine
CC
CC
     phosphorylation-mediated degradation of the polypeptide. The mutation
CC
     could be a mutation of the serine residue located at the amino terminus
     to alanine and/or could be a mutation that results in a leucine-leucine
CC
CC
     to alanine-alanine change in the polypeptide. The invention also provides
     methods for detecting the level of T cell activation; for detecting a
CC
     compound that modulates T cell activation; and for generating a src-
CC
CC
     family tyrosine kinase polypeptide that has a reduced level of serine
CC
     phosphorylation-mediated degradation. The methods can be used for the
     rapid detection of an antigen-specific immune response. They can also be
CC
CC
     used for screening candidate therapeutic compounds and protocols for the
     efficacy in either stimulating or blocking the antigen-specific immune
CC
CC
     response. Identification and development of such compounds and protocols
```

is useful for enhancing, decreasing or preventing antigen- specific

immune responses. Therapies which enhance the immune response aid in the

development of immunity to antigens derived from pathogens and cancerous

specific immune response are useful in preventing an immune response to

antigens derived from e.g. allogenic or xenogeneic organ transplants

cells. Therapies which prevent or decrease the development of an antigen-

Query Match 27.3%; Score 3; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 9.8e+03;

CC

CC

CC

CC

CC

XX SO

Sequence 11 AA;

```
Matches
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
            3; Conservative
                                                                  0; Gaps
            7 RKD 9
Qу
              1 RKD 3
Db
RESULT 72
AAW64653
     AAW64653 standard; peptide; 11 AA.
ID
XX
AC
     AAW64653;
XX
     23-OCT-1998 (first entry)
DT
XX
     Synthetic SEB-related peptide (position 51-61).
DΕ
XX
KW
     Enterotoxin B; SEB; pyrogenic exotoxin; PET; protective immunity;
     toxic shock; toxin-mediated activation; T-cell; antagonist; inhibitor;
KW
KW
     therapeutic; vaccine; food poisoning.
XX
OS
     Synthetic.
OS
     Staphylococcus aureus.
XX
     WO9829444-A1.
PN
XX
     09-JUL-1998.
PD
XX
                    97WO-IL000438.
PF
     30-DEC-1997;
XX
     30-DEC-1996;
                    96IL-00119938.
PR
XX
     (YISS ) YISSUM RES & DEV CO.
PA
XX
PI
     Kaempfer R, Arad G;
XX
DR
     WPI; 1998-388042/33.
XX
PT
     New peptide(s) derived from pyrogenic exotoxin - useful for, e.g.
PT
     antagonising toxin-mediated activation of T cells and prevention or
PT
     treatment of toxic shock caused by exotoxin(s).
XX
PS
     Example 2; Page 38; 68pp; English.
XX
CC
     AAW64636-W64657 are peptides homologous to the amino acid sequence of a
     fragment of a pyrogenic exotoxin (PET), and derivatives of the peptide
CC
CC
     capable of eliciting protective immunity against toxic shock induced by
CC
     PET or by a mixture of PETs. Such peptides are also capable of
CC
     antagonising toxin-mediated activation of T-cells, inhibiting expression
CC
     of pyrogenic toxin (PT)-induced mRNA encoded by IL-2, IFN-gamma or TNF-
CC
     beta genes. The peptides may be used to prepare therapeutics or vaccines
CC
     for the treatment of prophylaxis of toxin-mediated activation of T cells
CC
     and eliciting protective immunity against toxic shock induced by PETs.
     They can also be used for the treatment of harmful effects (especially
CC
CC
     food poisoning) and toxic shock caused by PET. Antiserum to the peptides
     can also be used for alleviating toxic shock induced by PET
CC
```

XX

```
SQ Sequence 11 AA;

Query Match
```

27.3%; Score 3; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 9.8e+03; Matches 3; Conservative 0; Mismatches 0; 0; Indels 0; Gaps 8 KDT 10 Qy 111 4 KDT 6 Db RESULT 73 AAW51825 ID AAW51825 standard; peptide; 11 AA. XX ACAAW51825; XX DT13-OCT-1998 (first entry) XX DEPeptide YY analogue #26. XX KW peptide YY; cell proliferation; nutrient transport; lipolysis; KW electrolyte secretion; anti-secretory; intestinal water; antimotility. XX OS Synthetic. OS Mammalia. XX Location/Qualifiers FHKey FTModified-site FT/note= "N-terminal acetyl" FTModified-site FT/note= "C-terminal amide" XX PNWO9820885-A1. XXPD22-MAY-1998. XXPF 13-NOV-1996; 96WO-US018374. XX PR13-NOV-1996; 96WO-US018374. XX PA(UYCI-) UNIV CINCINNATI. XX PΙ Balasubramaniam A; XX WPI; 1998-322327/28. DR XX PTNew analogue(s) of peptide YY - used, e.g. to control cell proliferation, PTnutrient transport, lipolysis and intestinal water and electrolyte PTsecretion. XX PS Disclosure; Page 17; 54pp; English. XX CCThe invention relates to peptide YY analogues which may be used e.g. for CÇ decreasing excess intestinal water and electrolyte secretion in mammals, to regulate cell proliferation (especially intestinal cell CC CC proliferation), to increase nutrient transport, to regulate lipolysis and

```
to regulate blood flow. The peptides exhibit antisecretory and
CC
     antimotility properties and are especially useful in treatment of
CC
     gastrointestinal disorders associated with excess intestinal electrolyte
     and water secretion as well as decreased absorption. The new peptides are
CC
     truncated versions of peptide YY. They interact solely with peptide YY
CC
CC
     receptors and not with homologous receptors such as NPY Y1 and Y3, thus
     minimising unwanted (ant)agonist side reactions. The present sequence
CC
     represents a peptide YY analogue
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 9.8e+03;
  Best Local Similarity
 Matches
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            5 RQR 7
Qу
              111
          8 RQR 10
Db
RESULT 74
AAW84029
    AAW84029 standard; peptide; 11 AA.
ID
XX
AC
    AAW84029;
XX ·
DT
     05-FEB-1999 (first entry)
XX
DE
     Human CYP3A4 specific synthetic peptide fragment 18.
XX
     CYP3A4; epitope; anti-peptide antibody; enzyme; therapeutic agent;
KW
KW
     cytochrome P450; gene expression; tissue localisation; inhibitory;
KW
     affinity purification; human.
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
ΡN
     WO9844939-A1.
XX
PD
     15-OCT-1998.
XX
PF
     09-APR-1998;
                    98WO-US007165.
XX
PR
     10-APR-1997; 97US-0043230P.
XX
PA
     (MERI ) MERCK & CO INC.
XX
PΙ
     Lu AYH, Wang RW;
XX
DR
     WPI; 1998-609899/51.
XX
     New antibodies to human CYP3A4 - are specific relative to other human
PT
PT
     P450 enzymes, produced using peptides specific for human CYP3A4.
XX
РS
     Example 2; Page 24; 58pp; English.
XX
CC
     Sequences AAW84012 to AAW84039 represent synthetic peptides specific to
```

CC

```
CC
     human CYP3A4. The peptides are fragments contained within the peptide
CC
     AAW84012 or AAW84013 comprising an inhibitory epitope. The invention
     provides anti- peptide antibodies raised against such human CYP3A4
CC
CC
     specific peptides in relation to other human P450 enzymes and inhibit
CC
     human CYP3A4 activity. The inhibitory anti-peptide antibodies are used
CC
     for evaluating the role of human CYP3A4 in mediating in vitro metabolism
CC
     of therapeutic agents. In addition, the antibodies can be used for
CC
     cytochrome P450 epitope investigation, gene expression and regulation,
CC
     tissue localisation, affinity purification for CYP3A4 and many other
CC
     studies
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.8e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            9 DTQ 11
Qу
              III
Db
            1 DTQ 3
RESULT 75
AAW84023
ID
     AAW84023 standard; peptide; 11 AA.
XX
AC
     AAW84023;
XX
DT
     05-FEB-1999
                 (first entry)
XX
DE
     Human CYP3A4 specific synthetic peptide fragment 12.
XX
KW
     CYP3A4; epitope; anti-peptide antibody; enzyme; therapeutic agent;
KW
     cytochrome P450; gene expression; tissue localisation; inhibitory;
KW
     affinity purification; human.
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
PN
     WO9844939-A1.
XX
PD
     15-OCT-1998.
XX
PF
     09-APR-1998;
                    98WO-US007165.
XX
PR
     10-APR-1997;
                    97US-0043230P.
XX
     (MERI ) MERCK & CO INC.
PA
XX
PI
     Lu AYH,
             Wang RW;
XX
DR
     WPI; 1998-609899/51.
XX
PT
     New antibodies to human CYP3A4 - are specific relative to other human
PT
     P450 enzymes, produced using peptides specific for human CYP3A4.
XX
PS
     Example 2; Page 24; 58pp; English.
```

```
XX
CC
     Sequences AAW84012 to AAW84039 represent synthetic peptides specific to
     human CYP3A4. The peptides are fragments contained within the peptide
CC
CC
     AAW84012 or AAW84013 comprising an inhibitory epitope. The invention
CC
     provides anti- peptide antibodies raised against such human CYP3A4
CC
     specific peptides in relation to other human P450 enzymes and inhibit
     human CYP3A4 activity. The inhibitory anti-peptide antibodies are used
CC
CC
     for evaluating the role of human CYP3A4 in mediating in vitro metabolism
CC
     of therapeutic agents. In addition, the antibodies can be used for
CC
     cytochrome P450 epitope investigation, gene expression and regulation,
CC
     tissue localisation, affinity purification for CYP3A4 and many other
CC
     studies
XX
SQ
     Sequence 11 AA;
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
  Best Local Similarity
                         100.0%; Pred. No. 9.8e+03;
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Qу
              Db
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Search completed: April 8, 2004, 15:39:49
Job time: 46.3077 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:08; Search time 11.3077 Seconds

(without alignments)

50.221 Million cell updates/sec

Title: US-09-787-443A-2

Perfect score: 11

Sequence: 1 AKKERQRKDTQ 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 389414 seqs, 51625971 residues

Word size:

Total number of hits satisfying chosen parameters: 8542

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Issued Patents AA:\*

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- 6: /cgn2 6/ptodata/2/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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	3	4	36.4	11	1	US-08-476-405A-11	Sequence 11, Appl
	4	4	36.4	11	2	US-08-747-137-63	Sequence 63, Appl
	5	4	36.4	11	3	US-09-100-930A-10	Sequence 10, Appl
	6	3	27.3	11	1	US-08-193-521-18	Sequence 18, Appl
	7	3	27.3	11	1	US-08-197-793-8	Sequence 8, Appli
	8	3	27.3	11	1	US-08-116-733-32	Sequence 32, Appl
	9	3	27.3	11	1	US-08-329-151-26	Sequence 26, Appl
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## ALIGNMENTS

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; Patent No. 5580747
; GENERAL INFORMATION:
    APPLICANT: SHULTZ, JOHN W.
    APPLICANT: WHITE, DOUGLAS H.
    TITLE OF INVENTION: NON-RADIOACTIVE KINASE,
    TITLE OF INVENTION: PHOSPHATASE AND PROTEASE ASSAY
    NUMBER OF SEQUENCES: 11
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ANDRUS, SCEALES, STARKE & SAWALL
       STREET: 100 E. WISCONSIN AVENUE, SUITE 1100
       CITY: MILWAUKEE
       STATE: WISCONSIN
       COUNTRY: USA
       ZIP: 53202
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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       COMPUTER: IBM PC compatible
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       SOFTWARE: #1.25
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      FILING DATE: 21-JAN-1994
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/791,928
       FILING DATE: 12-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: SARA, CHARLES S
      REGISTRATION NUMBER: 30492
      REFERENCE/DOCKET NUMBER: F.3347-1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (608) 255-2022
      TELEFAX: (608) 255-2182
      TELEX: 26832 ANDSTARK
   INFORMATION FOR SEO ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
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;
      TYPE: amino acid
      TOPOLOGY: linear
;
    MOLECULE TYPE: peptide
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      NAME/KEY:
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              3 RQRK 6
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US-08-476-405A-10
; Sequence 10, Application US/08476405A
; Patent No. 5776459
   GENERAL INFORMATION:
    APPLICANT: Vandenbark, Arthur A.
    TITLE OF INVENTION: Method of Treatment Using TCR VBeta5 Peptides
    NUMBER OF SEQUENCES: 27
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Connective Therapeutics, Inc.
      STREET: 3400 West Bayshore Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
;
      ZIP: 94303
;
     COMPUTER READABLE FORM:
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      APPLICATION NUMBER: US 08/059,020
      FILING DATE: 16-MAR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/735,612
      FILING DATE: 16-JUL-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/708,022
      FILING DATE: 31-MAY-1991
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/554,529
      FILING DATE: 19-JUL-1990
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/467,577
      FILING DATE: 19-JAN-1990
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/382,804
      FILING DATE: 19-JUL-1989
    ATTORNEY/AGENT INFORMATION:
      NAME: Lowin, David A.
      REGISTRATION NUMBER: 29,326
      REFERENCE/DOCKET NUMBER: 886 P15
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 415-843-2800
       TELEFAX: 415-843-2899
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
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       TOPOLOGY: linear
     MOLECULE TYPE: peptide
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; Sequence 11, Application US/08476405A
; Patent No. 5776459
; GENERAL INFORMATION:
     APPLICANT: Vandenbark, Arthur A.
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TITLE OF INVENTION: Method of Treatment Using TCR VBeta5 Peptides
    NUMBER OF SEQUENCES: 27
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Connective Therapeutics, Inc.
      STREET: 3400 West Bayshore Road
      CITY: Palo Alto
      STATE: California
      COUNTRY: USA
      ZIP: 94303
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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      SOFTWARE: PatentIn Release #1.0, Version #1.25
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      FILING DATE:
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/059,020
      FILING DATE: 16-MAR-1993
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      FILING DATE: 16-JUL-1991
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      FILING DATE: 31-MAY-1991
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    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/467,577
      FILING DATE: 19-JAN-1990
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/382,804
      FILING DATE: 19-JUL-1989
    ATTORNEY/AGENT INFORMATION:
      NAME: Lowin, David A.
      REGISTRATION NUMBER: 29,326
      REFERENCE/DOCKET NUMBER: 886 P15
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-843-2800
      TELEFAX: 415-843-2899
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
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7 ERQR 10

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RESULT 4
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; Sequence 63, Application US/08747137
; Patent No. 5945033
   GENERAL INFORMATION:
     APPLICANT: YEN, Richard C.K.
     TITLE OF INVENTION: NON-CROSSLINKED PROTEIN PARTICLES FOR
     TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC USE
     NUMBER OF SEQUENCES: 184
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend and Crew LLP
       STREET: Two Embarcadero Center, 8th Floor
      CITY: San Francisco
       STATE: CA
      COUNTRY: USA
       ZIP: 94111
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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       FILING DATE: 14-MAR-1994
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      APPLICATION NUMBER: US 08/069,831
       FILING DATE: 01-JUN-1993
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/959,560
       FILING DATE: 13-OCT-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/641,720
       FILING DATE: 15-JAN-1991
     ATTORNEY/AGENT INFORMATION:
      NAME: Apple, Randolph T.
       REGISTRATION NUMBER: 36,429
       REFERENCE/DOCKET NUMBER: 016197-000840US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 415-576-0200
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Best Local Similarity 100.0%; Pred. No. 2.1e+02;

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              Db
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; Sequence 10, Application US/09100930A
; Patent No. 6248549
; GENERAL INFORMATION:
  APPLICANT: Van Eyk, Jennifer E.
  APPLICANT: Mak, Alan S.
  APPLICANT: Cote, Graham P.
  TITLE OF INVENTION: Methods of Modulating Muscle Contraction
  FILE REFERENCE: 1997-021-03US
  CURRENT APPLICATION NUMBER: US/09/100,930A
  CURRENT FILING DATE: 1998-06-22
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  PRIOR FILING DATE: 1997-06-23
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  PRIOR FILING DATE: 1998-06-16
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   NAME/KEY: PEPTIDE
   LOCATION: (11)
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; Sequence 18, Application US/08193521
; Patent No. 5470950
  GENERAL INFORMATION:
    APPLICANT: Maloy, W. Lee
    APPLICANT: Kari, U. Prasad
    APPLICANT:
                Williams, Jon I.
     TITLE OF INVENTION: Biologically Active Peptide
    TITLE OF INVENTION: Compositions and Uses Therefor
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Gaps

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Matches

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      ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
      ADDRESSEE: Cecchi & Stewart
      STREET: 6 Becker Farm Road
      CITY: Roseland
      STATE: New Jersey
      COUNTRY: USA
      ZIP: 07068
    COMPUTER READABLE FORM:
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      APPLICATION NUMBER: US/07/870,960
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      APPLICATION NUMBER: 07/760,054
      FILING DATE: 13-SEP-1991
    ATTORNEY/AGENT INFORMATION:
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     NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-161
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      TELEPHONE: 201-994-1700
      TELEFAX: 201-994-1744
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      OTHER INFORMATION: and/or may be acetylated at
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; Patent No. 5510461
; GENERAL INFORMATION:
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APPLICANT: Meuer, S.
     APPLICANT: Schraven, B.
;
     APPLICANT: Schoenhaut, D.
     APPLICANT: Ratnofsky, S.
     TITLE OF INVENTION: pp32: A Newly Identified CD45-Associated
     NUMBER OF SEQUENCES: 20
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: LAHIVE & COCKFIELD
       STREET: 60 STATE STREET, SUITE 510
      CITY: BOSTON
      STATE: MASSACHUSETTS
      COUNTRY: USA
      ZIP: 02109
    COMPUTER READABLE FORM:
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      FILING DATE:
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 07/688,019;
      FILING DATE: 19-APR-1991
      APPLICATION NUMBER: 08/004,199
      FILING DATE: 13-JAN-1993
    ATTORNEY/AGENT INFORMATION:
     NAME: DeConti, Giulio A., Jr.
      REGISTRATION NUMBER: 31,503
      REFERENCE/DOCKET NUMBER: BBI-006CNCP
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 227-7400
      TELEFAX: (617) 227-5941
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FRAGMENT TYPE: internal
US-08-197-793-8
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                           0;
           4 ERQ 6
Qу
             \perp
           9 ERO 11
Db
RESULT 8
US-08-116-733-32
; Sequence 32, Application US/08116733
; Patent No. 5516632
; GENERAL INFORMATION:
```

```
APPLICANT: PALKER, Thomas J.
    APPLICANT: HAYNES, Barton F.
    TITLE OF INVENTION: SYNTHETIC PEPTIDES
    NUMBER OF SEQUENCES: 46
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
;
      STREET: 1100 NORTH GLEBE ROAD
;
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: U.S.A.
      ZIP: 22201-4714
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/116,733
      FILING DATE: 07-SEP-1993
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: WILSON, MARY J.
      REGISTRATION NUMBER: 32,955
      REFERENCE/DOCKET NUMBER: 1579-33
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 816-4000
      TELEFAX: (703) 816-4100
      TELEX: 200797 NIXN UR
   INFORMATION FOR SEQ ID NO: 32:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-116-733-32
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                              0; Mismatches 0; Indels 0; Gaps
                                                                          0;
            3; Conservative
  Matches
           1 AKK 3
Qу
             2 AKK 4
Db
RESULT 9
US-08-329-151-26
; Sequence 26, Application US/08329151
; Patent No. 5604203
; GENERAL INFORMATION:
    APPLICANT: Balasubramaniam, A.
    TITLE OF INVENTION: ANALOGS OF PEPTIDE YY AND USES
    TITLE OF INVENTION: THEREOF
    NUMBER OF SEQUENCES: 30
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Fish & Richardson
      STREET: 225 Franklin Street
```

```
CITY: Boston
       STATE: Massachusetts
       COUNTRY: U.S.A.
       ZIP: 02110-2804
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      COMPUTER: IBM PS/2 Model 50Z or 55SX
      OPERATING SYSTEM: MS-DOS (Version 5.0)
       SOFTWARE: WordPerfect (Version 5.1)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/329,151
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/038,534
      FILING DATE: 3/29/93
      APPLICATION NUMBER: 08/109,326
      FILING DATE: 08/19/93
    ATTORNEY/AGENT INFORMATION:
      NAME: Paul T. Clark
      REGISTRATION NUMBER: 30,162
      REFERENCE/DOCKET NUMBER: 00537/105001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 542-5070
      TELEFAX: (617) 542-8906
      TELEX: 200154
   INFORMATION FOR SEQ ID NO: 26:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11
      TYPE: amino acid
      STRANDEDNESS: N/A
      TOPOLOGY: linear
    FEATURE:
      OTHER INFORMATION: The sequence has an acetylated N-terminus
      OTHER INFORMATION: (i.e., N-`-Ac), rather than an amino N-terminus
(i.e., H2N-).
      OTHER INFORMATION: has an amide C-terminus (i.e., CO-NH2), rather than a
carboxyl
      OTHER INFORMATION: (i.e., CO-OH).
US-08-329-151-26
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           5 ROR 7
Qу
             Db
           8 RQR 10
RESULT 10
US-08-306-546C-25
; Sequence 25, Application US/08306546C
; Patent No. 5605797
; GENERAL INFORMATION:
    APPLICANT: Friderici, Karen
    APPLICANT: Jones, Margaret
```

```
APPLICANT: Chen, Hong
     APPLICANT: Cavanagh, Kevin
     TITLE OF INVENTION: Bovine Beta-Mannosidase Gene and Methods
     TITLE OF INVENTION: of Use
     NUMBER OF SEQUENCES: 28
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Harness, Dickey & Pierce, P.L.C.
       STREET: P.O. Box 828
      CITY: Bloomfield Hills
       STATE: Michigan
       COUNTRY: USA
       ZIP: 48303
    COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
;
;
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/306,546C
       FILING DATE: September 15, 1994
;
       CLASSIFICATION: 435
     ATTORNEY/AGENT INFORMATION:
      NAME: Smith, DeAnn F.
       REGISTRATION NUMBER: 36,683
;
      REFERENCE/DOCKET NUMBER: 6550-00003
;
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (810)641-1600
       TELEFAX: (810)641-0270
   INFORMATION FOR SEQ ID NO: 25:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-306-546C-25
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches
           3; Conservative
                               0; Mismatches 0; Indels 0; Gaps
                                                                               0;
            8 KDT 10
Qу
              -111
            2 KDT 4
RESULT 11
US-08-434-120-112
; Sequence 112, Application US/08434120
; Patent No. 5635479
  GENERAL INFORMATION:
    APPLICANT: Baker, Margaret A.
    APPLICANT: Jacob, Leonard S.
    APPLICANT: Maloy, W. Lee
     TITLE OF INVENTION: Treatment of Gynecological
    TITLE OF INVENTION: Malignancies with
TITLE OF INVENTION: Biologically Active Peptides
    NUMBER OF SEQUENCES: 117
```

```
CORRESPONDENCE ADDRESS:
       ADDRESSEE: Carella, Byrne, Bain, Gilfillan,
       ADDRESSEE: Cecchi & Stewart
       STREET: 6 Becker Farm Road
       CITY: Roseland
       STATE: New Jersey
       COUNTRY: USA
       ZIP: 07068
     COMPUTER READABLE FORM:
       MEDIUM TYPE: 3.5 inch diskette
       COMPUTER: IBM PS/2
       OPERATING SYSTEM: PC-DOS
       SOFTWARE: DW4.V2
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/434,120
       FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/297,950
      FILING DATE:
      APPLICATION NUMBER: US/08/226,108
      FILING DATE:
      APPLICATION NUMBER: US/07/937,462
       FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Olstein, Elliot M.
      REGISTRATION NUMBER: 24,025
      REFERENCE/DOCKET NUMBER: 421250-194
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 201-994-1700
       TELEFAX: 201-994-1744
   INFORMATION FOR SEQ ID NO: 112:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-434-120-112
  Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative
                             0; Mismatches 0; Indels
                                                                0; Gaps
                                                                           0;
           1 AKK 3
Qу
             111
           1 AKK 3
RESULT 12
US-08-486-057B-16
; Sequence 16, Application US/08486057B
; Patent No. 5650494
  GENERAL INFORMATION:
    APPLICANT: Cerletti, Nico
    APPLICANT: McMaster, Gary K.
    APPLICANT: Cox, David
```

```
APPLICANT: Schmitz, Albert
    APPLICANT: Meyhack, Bernd
    TITLE OF INVENTION: Process for Refolding Recombinantly
    TITLE OF INVENTION: Produced TGF-beta-like Proteins
    NUMBER OF SEQUENCES: 43
    CORRESPONDENCE ADDRESS:
;
       ADDRESSEE: Henry P. No. 5650494ak
;
       STREET: 520 White Plains Road, P.O. Box 2005
      CITY: Tarrytown
;
       STATE: New York
;
       COUNTRY: U.S.A.
;
       ZIP: 10591-9005
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
;
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/486,057B
       FILING DATE: 07-JUN-1995
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/201,703
;
       FILING DATE: 25-FEB-1994
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 07/960,309
       FILING DATE: 13-OCT-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/621,502
       FILING DATE: 03-DEC-1990
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 8927546.5
;
       FILING DATE: 06-DEC-1989
    ATTORNEY/AGENT INFORMATION:
       NAME: No. 5650494ak, Henry P.
       REGISTRATION NUMBER: 33200
       REFERENCE/DOCKET NUMBER: 4-17861/+/cont3
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (908) 277-5110
       TELEFAX: (908) 277-4306
;
   INFORMATION FOR SEQ ID NO: 16:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: not relevant
       TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-486-057B-16
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
            3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
Qу
            9 DTQ 11
              \perp
            1 DTQ 3
Db
```

```
RESULT 13
US-08-465-325-111
; Sequence 111, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
                5110 Campus Drive
    APPLICANT:
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
       FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
      TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 111:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-111
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative
                              0; Mismatches
                                                0; Indels 0; Gaps
                                                                           0;
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RESULT 14

US-08-465-325-122

```
; Sequence 122, Application US/08465325
; Patent No. 5686563
  GENERAL INFORMATION:
    APPLICANT: Magainin Pharmaceuticals Inc.
    APPLICANT: 5110 Campus Drive
    APPLICANT: Plymouth Meeting, PA 19462
    TITLE OF INVENTION: Biologically Active Peptides Having
    TITLE OF INVENTION: N-Terminal Substitutions
    NUMBER OF SEQUENCES: 153
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
      FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/184,462
      FILING DATE: 18-JAN-94
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
      FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
      TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-122
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                              0; Mismatches
                                                               0; Gaps
            3; Conservative
                                               0; Indels
```

```
1 AKK 3
Qу
             7 AKK 9
Db
RESULT 15
US-08-465-325-123
; Sequence 123, Application US/08465325
; Patent No. 5686563
   GENERAL INFORMATION:
     APPLICANT: Magainin Pharmaceuticals Inc.
     APPLICANT: 5110 Campus Drive
     APPLICANT: Plymouth Meeting, PA 19462
     TITLE OF INVENTION: Biologically Active Peptides Having
     TITLE OF INVENTION: N-Terminal Substitutions
     NUMBER OF SEQUENCES: 153
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
      ADDRESSEE: Dunner
      STREET: 1300 I. Street, N.W. Suite 700
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20005-3315
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/465,325
    FILING DATE: 05-JUN-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA: .
      APPLICATION NUMBER: 08/184,462
       FILING DATE: 18-JAN-94
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/891,201
       FILING DATE: 01-JUN-92
    ATTORNEY/AGENT INFORMATION:
      NAME: Fordis, Jean B
      REGISTRATION NUMBER: 32,984
      REFERENCE/DOCKET NUMBER: 05387.0021-03000
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 408-4000
      TELEFAX: (202) 408-4400
  INFORMATION FOR SEQ ID NO: 123:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-465-325-123
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Best Local Similarity 100.0%; Pred. No. 2.3e+03;

27.3%; Score 3; DB 1; Length 11;

Query Match

```
Matches
            3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           1 AKK 3
Qу
             \Box\Box\Box
Db
            7 AKK 9
RESULT 16
US-08-411-727-10
; Sequence 10, Application US/08411727
; Patent No. 5705161
; Patent No. 5705161 5683703
   GENERAL INFORMATION:
     APPLICANT: VAN DER LEY, Peter Andre
     APPLICANT: POOLMAN, Jan Theunis
;
     APPLICANT: HOOGERHOUT, Peter
;
     TITLE OF INVENTION: IMMUNOGENIC MENINGOCOCCAL LPS AND OTHER
     TITLE OF INVENTION: MEMBRANE VESICLES AND VACCINE THEREFROM
     NUMBER OF SEQUENCES: 30
     CORRESPONDENCE ADDRESS:
•;
       ADDRESSEE: YOUNG & THOMPSON
       STREET: 745 South 23rd Street, Suite 200
       CITY: Arlington
       STATE: Virginia
;
      COUNTRY: U.S.A.
       ZIP: 22202
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE:
                 PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/411,727
       FILING DATE: 01-MAY-1995
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: NL 9201716
       FILING DATE: 02-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/NL93/00163
       FILING DATE: 30-JUL-1993
;
    ATTORNEY/AGENT INFORMATION:
      NAME: PATCH, Andrew J.
       REGISTRATION NUMBER: 32925
       REFERENCE/DOCKET NUMBER: BO 38275
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 703-521-2297
       TELEFAX: 703-685-0573
       TELEX: 248425 EMBON
;
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-411-727-10
```

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Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative
                               0; Mismatches
                                                0; Indels 0; Gaps
                                                                            0;
           8 KDT 10
Qу
              \mathbf{I}
            3 KDT 5
RESULT 17
US-08-411-727-18
; Sequence 18, Application US/08411727
; Patent No. 5705161
; Patent No. 5705161 5683703
  GENERAL INFORMATION:
    APPLICANT: VAN DER LEY, Peter Andre
    APPLICANT: POOLMAN, Jan Theunis
     APPLICANT: HOOGERHOUT, Peter
    TITLE OF INVENTION: IMMUNOGENIC MENINGOCOCCAL LPS AND OTHER
     TITLE OF INVENTION: MEMBRANE VESICLES AND VACCINE THEREFROM
    NUMBER OF SEQUENCES: 30
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: YOUNG & THOMPSON
      STREET: 745 South 23rd Street, Suite 200
      CITY: Arlington
      STATE: Virginia
      COUNTRY: U.S.A.
      ZIP: 22202
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/411,727
      FILING DATE: 01-MAY-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: NL 9201716
;
       FILING DATE: 02-OCT-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/NL93/00163
       FILING DATE: 30-JUL-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: PATCH, Andrew J.
       REGISTRATION NUMBER: 32925
      REFERENCE/DOCKET NUMBER: BO 38275
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 703-521-2297
      TELEFAX: 703-685-0573
       TELEX: 248425 EMBON
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: protein
```

```
Query Match
                         27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches
                                                 0; Indels
                                                             0; Gaps
           8 KDT 10
Qу
             111
           3 KDT 5
RESULT 18
US-08-548-540-119
; Sequence 119, Application US/08548540
; Patent No. 5733731
  GENERAL INFORMATION:
    APPLICANT: Schatz, Peter J.
    APPLICANT: Cull, Millard G.
    APPLICANT: Miller, Jeff F.
    APPLICANT: Stemmer, Willem P.C.
    APPLICANT: Gates, Christian M.
    TITLE OF INVENTION: Peptide Library and Screening Method
    NUMBER OF SEQUENCES: 162
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: William M. Smith
      STREET: One Market Plaza, Steuart Tower, Suite 2000
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94105
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/548,540
      FILING DATE: 26-OCT-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/290,641
      FILING DATE: 15-AUG-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/963,321
      FILING DATE: 15-OCT-1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Smith, William M.
      REGISTRATION NUMBER: 30,223
      REFERENCE/DOCKET NUMBER: 16528J-001240US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-326-2400
      TELEFAX: 415-326-2422
   INFORMATION FOR SEQ ID NO: 119:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
```

```
TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-548-540-119
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches 0; Indels
 Matches
           3; Conservative
                                                                0; Gaps
                                                                          0;
Qу
           4 ERQ 6
             \Box
           4 ERQ 6
Db
RESULT 19
US-08-530-524A-25
; Sequence 25, Application US/08530524A
; Patent No. 5837836
  GENERAL INFORMATION:
    APPLICANT: Friderici, Karen
    APPLICANT: Jones, Margaret
    APPLICANT: Chen, Hong
    APPLICANT: Cavanagh, Kevin
    TITLE OF INVENTION: Bovine Beta-Mannosidase Gene and Methods
    TITLE OF INVENTION: of Use
    NUMBER OF SEQUENCES: 28
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Harness, Dickey & Pierce, P.L.C.
      STREET: P.O. Box 828
      CITY: Bloomfield Hills
      STATE: Michigan
      COUNTRY: USA
      ZIP: 48303
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/530,524A
      FILING DATE: September 19, 1995
      CLASSIFICATION: 536
    ATTORNEY/AGENT INFORMATION:
      NAME: Smith, DeAnn F.
      REGISTRATION NUMBER: 36,683
      REFERENCE/DOCKET NUMBER: 6550-00003DVA
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (810)641-1600
      TELEFAX: (810)641-0270
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-530-524A-25
```

27.3%; Score 3; DB 2; Length 11;

Query Match

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Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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           8 KDT 10
Qу
             \perp
           2 KDT 4
Db
RESULT 20
US-08-248-839C-26
; Sequence 26, Application US/08248839C
; Patent No. 5843702
  GENERAL INFORMATION:
    APPLICANT: McConnell, David
    APPLICANT: Devine, Kevin
    APPLICANT: O'Kane, Charles
;
    TITLE OF INVENTION: A Gene Expression System
    NUMBER OF SEQUENCES: 185
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: No. 58437020 No. 5843702disk of No. 5843702th America, Inc.
;
      STREET: 405 Lexington Avenue
      CITY: New York
      STATE: New York
;
      COUNTRY: USA
;
      ZIP: 10174-6401
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/248,839C
;
       FILING DATE: 25-MAY-1994
;
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Gregg, Valeta A.
;
       REGISTRATION NUMBER: 35,127
       REFERENCE/DOCKET NUMBER:
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 212-867-0123
       TELEFAX: 212-878-9655
;
   INFORMATION FOR SEQ ID NO: 26:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: Protein
US-08-248-839C-26
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
          3; Conservative 0; Mismatches 0; Indels
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                                                                           0;
            5 RQR 7
Qу
              111
            9 RQR 11
```

```
RESULT 21
US-08-636-176-8
; Sequence 8, Application US/08636176
; Patent No. 5846822
   GENERAL INFORMATION:
     APPLICANT: Meuer, S.
    APPLICANT: Schraven, B.
    APPLICANT: Schoenhaut, D.
    APPLICANT: Ratnofsky, S.
    TITLE OF INVENTION: pp32: A Newly Identified CD45-Associated
    TITLE OF INVENTION: Protein
    NUMBER OF SEQUENCES: 20
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: LAHIVE & COCKFIELD
       STREET: 60 STATE STREET, SUITE 510
      CITY: BOSTON
       STATE: MASSACHUSETTS
      COUNTRY: USA
      ZIP: 02109
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: ASCII text
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/636,176
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/688,019; 08/004,199
      FILING DATE: 19-APR-1991; 13-JAN-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: DeConti, Giulio A., Jr.
      REGISTRATION NUMBER: 31,503
      REFERENCE/DOCKET NUMBER: BBI-006CNCP
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 227-7400
       TELEFAX: (617) 227-5941
   INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
     FRAGMENT TYPE: internal
US-08-636-176-8
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
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           4 ERO 6
Qу
             Db
           9 ERQ 11
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RESULT 22
US-08-737-085A-12
; Sequence 12, Application US/08737085A
; Patent No. 5869232
   GENERAL INFORMATION:
     APPLICANT: SALLBERG, MATTI
     TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
     TITLE OF INVENTION:
                         EXCHANGER
    NUMBER OF SEQUENCES: 23
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: DARBY & DARBY PC
      STREET: 805 Third Avenue
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10022
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/737,085A
      FILING DATE: 27-DEC-1996
      CLASSIFICATION: 426
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Green, Reza
      REGISTRATION NUMBER: 38,475
      REFERENCE/DOCKET NUMBER: 3846/0C569
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 212-527-7659
      TELEFAX: 212-753-6237
      TELEX: 236687
  INFORMATION FOR SEQ ID NO: 12:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-737-085A-12
 Query Match
                         27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches 0; Indels
 Matches
            3; Conservative
                                                                0; Gaps
                                                                            0;
           6 QRK 8
Qy
             +
Db
           1 QRK 3
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RESULT 23 US-08-538-960-8

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; Sequence 8, Application US/08538960
 Patent No. 5872230
  GENERAL INFORMATION:
    APPLICANT: Stocco, Douglas M.
    APPLICANT: Clark, Barbara J.
    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
    TITLE OF INVENTION: REGULATION OF STEROIDOGENESIS
    NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.
      STREET: 1900 Frost Bank Plaza, 816 Congress Avenue
      CITY: Austin
      STATE: TX
      COUNTRY: U.S.A.
      ZIP: 78701
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/538,960
      FILING DATE: Concurrently Herewith
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Mayfield, Denise L.
;
      REGISTRATION NUMBER: 33,732
      REFERENCE/DOCKET NUMBER: 43375.0002/DLM
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 512/499-6200
      TELEFAX: 512/499-6290
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-538-960-8
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches 0; Indels
                                                                            0;
           3; Conservative
                                                                0; Gaps
           2 KKE 4
Qу
             | | |
           9 KKE 11
RESULT 24
US-08-893-853-54
; Sequence 54, Application US/08893853
; Patent No. 5891994
  GENERAL INFORMATION:
    APPLICANT: Goldstein, Gideon
    TITLE OF INVENTION: Methods and Compositions for Impairing
    TITLE OF INVENTION: Multiplication of HIV-1
```

```
NUMBER OF SEQUENCES: 85
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Howson and Howson
      STREET: Spring House Corporate Cntr., P.O. Box 457
      CITY: Spring House
      STATE: PA
      COUNTRY: USA
      ZIP: 19477
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/893,853
      FILING DATE:
;
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Bak, Mary E.
      REGISTRATION NUMBER: 31,215
      REFERENCE/DOCKET NUMBER: GGP2USA
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 215-540-9200
      TELEFAX: 215-540-5818
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-893-853-54
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                 0; Gaps
                                                                              0;
            3; Conservative
            5 RQR 7
Qу
              \mathbf{I} + \mathbf{I}
Db
            2 RQR 4
RESULT 25
US-08-893-853-74
; Sequence 74, Application US/08893853
; Patent No. 5891994
  GENERAL INFORMATION:
    APPLICANT: Goldstein, Gideon
    TITLE OF INVENTION: Methods and Compositions for Impairing
    TITLE OF INVENTION: Multiplication of HIV-1
;
    NUMBER OF SEQUENCES: 85
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Howson and Howson
       STREET: Spring House Corporate Cntr., P.O. Box 457
       CITY: Spring House
       STATE: PA
       COUNTRY: USA
```

```
ZIP: 19477
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/893,853
      FILING DATE:
     CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
    NAME: Bak, Mary E.
      REGISTRATION NUMBER: 31,215
     REFERENCE/DOCKET NUMBER: GGP2USA
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 215-540-9200
      TELEFAX: 215-540-5818
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-893-853-74
 Query Match 27.3%; Score 3; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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 Matches
           5 RQR 7
Qу
             Db
           2 RQR 4
RESULT 26
US-08-466-975A-3
; Sequence 3, Application US/08466975A
; Patent No. 5910404
 GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
     ZIP: 22201
    COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/466,975A
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE:
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
       FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
      REGISTRATION NUMBER: 36,663
       REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
       TELEFAX: 7038164100
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-466-975A-3
 Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0;
                                                                    Gaps
                                                                            0;
           6 QRK 8
Qу
             -1111
Db
           1 QRK 3
RESULT 27
US-08-391-671A-3
; Sequence 3, Application US/08391671A
; Patent No. 5922532
   GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
```

```
CITY: ARLINGTON
       STATE: VA
       COUNTRY: USA
       ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671A
      FILING DATE: 21-FEB-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
      REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
  INFORMATION FOR SEO ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-391-671A-3
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                              0; Mismatches 0; Indels 0; Gaps
 Matches
           3; Conservative
                                                                           0;
           6 QRK 8
Qу
             +111
Db
           1 QRK 3
RESULT 28
US-08-789-588-16
; Sequence 16, Application US/08789588
; Patent No. 5922846
; GENERAL INFORMATION:
    APPLICANT: Cerletti, Nico
    APPLICANT: McMaster, Gary K.
    APPLICANT: Cox, David
    APPLICANT: Schmitz, Albert
    APPLICANT: Meyhack, Bernd
```

```
TITLE OF INVENTION: Process for Refolding Recombinantly
    TITLE OF INVENTION: Produced TGF-beta-like Proteins
ï
    NUMBER OF SEQUENCES: 43
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Henry P. No. 5922846ak
      STREET: 520 White Plains Road, P.O. Box 2005
      CITY: Tarrytown
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10591-9005
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/789,588
      FILING DATE:
;
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/486,057
      FILING DATE: 07-JUN-1995
      APPLICATION NUMBER: US 08/201,703
      FILING DATE: 25-FEB-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/960,309
      FILING DATE: 13-OCT-1992
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 07/621,502
      FILING DATE: 03-DEC-1990
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: GB 8927546.5
      FILING DATE: 06-DEC-1989
    ATTORNEY/AGENT INFORMATION:
      NAME: No. 5922846ak, Henry P.
      REGISTRATION NUMBER: 33200
      REFERENCE/DOCKET NUMBER: 4-17861/+/Cont3
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (908) 277-5110
      TELEFAX: (908) 277-4306
  INFORMATION FOR SEQ ID NO: 16:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
;
      TYPE: amino acid
;
      STRANDEDNESS: not relevant
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-789-588-16
 Query Match 27.3%; Score 3; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Matches
           9 DTQ 11
Qy
             1 DTQ 3
```

```
RESULT 29
US-08-760-075A-1
; Sequence 1, Application US/08760075A
; Patent No. 5942429
  GENERAL INFORMATION:
    APPLICANT: KIRSCHBAUM, Bernd
    APPLICANT: MUELLNER, Stefan
    APPLICANT: BARTLETT, Robert
    TITLE OF INVENTION: NOVEL DEAH-BOX PROTEINS
    NUMBER OF SEQUENCES: 38
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Foley & Lardner
      STREET: 3000 K Street, N.W., Suite 500
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20007-5109
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/760,075A
      FILING DATE: 04-DEC-1996
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: DE 19545126.0
      FILING DATE: 04-DEC-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: GRANADOS, Patricia D.
      REGISTRATION NUMBER: 33,683
      REFERENCE/DOCKET NUMBER: 18748/309
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 672-5300
      TELEFAX: (202) 672-5399
      TELEX: 904136
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-760-075A-1
 Query Match
                          27.3%; Score 3; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            2 KKE 4
Qγ
              \mathbf{I} \mathbf{I} \mathbf{I}
Db
            9 KKE 11
```

RESULT 30 US-08-706-741B-54

```
; Sequence 54, Application US/08706741B
; Patent No. 5955593
  GENERAL INFORMATION:
    APPLICANT: KORSMEYER, STANLEY J.
    TITLE OF INVENTION: BH3 INTERACTING DOMAIN DEATH AGONIST
    NUMBER OF SEQUENCES: 88
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: HOWELL & HAFERKAMP, L.C.
      STREET: 7733 FORSYTH BLVD., SUITE 1400
      CITY: ST. LOUIS
      STATE: MISSOURI
      COUNTRY: USA
      ZIP: 63146
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/706,741B
      FILING DATE: 09-SEP-1996
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: HOLLAND, DONALD R.
      REGISTRATION NUMBER: 35,197
      REFERENCE/DOCKET NUMBER: 965017
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (314) 727-5188
      TELEFAX: (314) 727-6092
   INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-706-741B-54
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative
                             0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           5 RQR 7
Qу
             +11
           7 RQR 9
Db
RESULT 31
US-08-924-695A-54
; Sequence 54, Application US/08924695A
; Patent No. 5998583
; GENERAL INFORMATION:
    APPLICANT: KORSMEYER, STANLEY J.
    TITLE OF INVENTION: BH3 INTERACTING DOMAIN DEATH AGONIST
    NUMBER OF SEQUENCES: 88
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: HOWELL & HAFERKAMP, L.C.
```

```
STREET: 7733 FORSYTH BLVD., SUITE 1400
       CITY: ST. LOUIS
      STATE: MISSOURI
      COUNTRY: USA
      ZIP: 63105
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/924,695A
      FILING DATE: 09-SEP-1997
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: HOLLAND, DONALD R.
      REGISTRATION NUMBER: 35,197
      REFERENCE/DOCKET NUMBER: 971798
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (314) 727-5188
      TELEFAX: (314) 727-6092
   INFORMATION FOR SEQ ID NO: 54:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-924-695A-54
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                           0;
Qу
           5 ROR 7
             111
           7 RQR 9
Dh
RESULT 32
US-08-467-902A-3
; Sequence 3, Application US/08467902A
; Patent No. 6007982
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
```

```
ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/467,902A
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/391,671
      FILING DATE:
     APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
      REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-467-902A-3
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
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           6 QRK 8
Qу
             1 QRK 3
Db
RESULT 33
US-09-246-258-12
; Sequence 12, Application US/09246258
; Patent No. 6040137
; GENERAL INFORMATION:
    APPLICANT: SALLBERG, MATTI
    TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
    TITLE OF INVENTION: EXCHANGER
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: DARBY & DARBY PC
```

```
STREET: 805 Third Avenue
       CITY: New York
;
       STATE: New York
;
       COUNTRY: USA
       ZIP: 10022
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette
       COMPUTER: IBM Compatible
;
       OPERATING SYSTEM: DOS
;
       SOFTWARE: FastSEQ for Windows Version 2.0
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/246,258
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/737,085
       FILING DATE:
;
    ATTORNEY/AGENT INFORMATION:
ï
      NAME: Green, Reza
       REGISTRATION NUMBER: 38,475
       REFERENCE/DOCKET NUMBER: 3846/0C569
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 212-527-7659
       TELEFAX: 212-753-6237
       TELEX: 236687
   INFORMATION FOR SEQ ID NO: 12:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-246-258-12
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
  Matches
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           3; Conservative
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            6 ORK 8
Qу
              | | | |
            1 QRK 3
RESULT 34
US-09-188-579-65
; Sequence 65, Application US/09188579B
; Patent No. 6107040
; GENERAL INFORMATION:
  APPLICANT: Shuman, Stewart
  TITLE OF INVENTION: Pharmacological Targeting of mRNA Cap Formation
  FILE REFERENCE: D6185
; CURRENT APPLICATION NUMBER: US/09/188,579B
; CURRENT FILING DATE: 1998-11-09
; NUMBER OF SEO ID NOS: 114
; SEQ ID NO 65
   LENGTH: 11
   TYPE: PRT
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ORGANISM: vaccinia virus
   FEATURE:
   OTHER INFORMATION: Motif V of RNA guanylyltransferase.
US-09-188-579-65
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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                                                                          0;
           2 KKE 4
Qy .
            5 KKE 7
Db
RESULT 35
US-08-602-999A-284
; Sequence 284, Application US/08602999A
; Patent No. 6184205
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
;
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
;
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
;
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
;
      COUNTRY: U.S.A.
;
      ZIP: 10036-2711
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
;
      FILING DATE: 16-FEB-1996
;
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
;
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 284:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
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TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-284
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches 0; Indels 0; Gaps
           3: Conservative
                                                                            0:
            3 KER 5
Qу
             \perp \perp \perp
Db
            9 KER 11
RESULT 36
US-09-113-921-74
; Sequence 74, Application US/09113921
; Patent No. 6193981
  GENERAL INFORMATION:
    APPLICANT: Goldstein, Gideon
    TITLE OF INVENTION: Methods and Compositions for Impairing
    TITLE OF INVENTION: Multiplication of HIV-1
    NUMBER OF SEQUENCES: 124
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Howson and Howson
      STREET: Spring House Corporate Cntr., P.O. Box 457
      CITY: Spring House
       STATE: PA
      COUNTRY: USA
      ZIP: 19477
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/113,921
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/893,853
       FILING DATE: 11-JUL-1997
    ATTORNEY/AGENT INFORMATION:
      NAME: Bak, Mary E.
       REGISTRATION NUMBER: 31,215
       REFERENCE/DOCKET NUMBER: GGP2AUSA
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 215-540-9200
      TELEFAX: 215-540-5818
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-113-921-74
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Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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           5 RQR 7
             \perp
           2 ROR 4
RESULT 37
US-08-659-254-8
; Sequence 8, Application US/08659254
; Patent No. 6194555
  GENERAL INFORMATION:
    APPLICANT: Stocco, Douglas M.
    APPLICANT: Clark, Dr. Barbara J.
    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR REGULATION
;
    TITLE OF INVENTION: OF STEROIDOGENESIS
    NUMBER OF SEQUENCES: 19
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.
;
      STREET: 1900 Frost Bank Plaza, 816 Congress Avenue
      CITY: Austin
;
      STATE: TX
;
      COUNTRY: U.S.A.
;
      ZIP: 78701
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/659,254
      FILING DATE: 07-JUN-1996
;
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US 08/538,960
      FILING DATE: 04-OCT-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Mayfield, Denise L.
      REGISTRATION NUMBER: 33,732
      REFERENCE/DOCKET NUMBER: 43375.0006
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 512/499-6200
;
      TELEFAX: 512/499-6290
;
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-659-254-8
 Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
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2 KKE 4
Qу
              III
            9 KKE 11
Db
RESULT 38
US-09-206-059-23
; Sequence 23, Application US/09206059
; Patent No. 6201104
; GENERAL INFORMATION:
  APPLICANT: MacDonald, Nicholas
  APPLICANT: Sim, Kim Lee
  TITLE OF INVENTION: Angiogenesis-Inhibiting Protein Binding Peptides and
  TITLE OF INVENTION: Proteins and Methods of Use
  FILE REFERENCE: 05213-0370
  CURRENT APPLICATION NUMBER: US/09/206,059
  CURRENT FILING DATE: 1998-12-04
 NUMBER OF SEQ ID NOS: 80
 SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 23
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic
   OTHER INFORMATION: binding peptides
US-09-206-059-23
 Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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                              0; Mismatches 0; Indels
                                                                 0; Gaps
           7 RKD 9
Qу
              III
Db
           5 RKD 7
RESULT 39
US-09-208-966-2
; Sequence 2, Application US/09208966
; Patent No. 6221355
; GENERAL INFORMATION:
  APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/208,966
  CURRENT FILING DATE: 1998-12-10
  EARLIER APPLICATION NUMBER: 60/082,402
  EARLIER FILING DATE: 1998-04-20
  EARLIER APPLICATION NUMBER: 60/069,012
  EARLIER FILING DATE: 1997-12-10
  NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
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US-09-208-966-2
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                           0;
Qy
           5 RQR 7
             111
Db
           7 RQR 9
RESULT 40
US-09-208-966-16
; Sequence 16, Application US/09208966
; Patent No. 6221355
; GENERAL INFORMATION:
; APPLICANT: Dowdy, Steven F.
; TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/208,966
; CURRENT FILING DATE: 1998-12-10
; EARLIER APPLICATION NUMBER: 60/082,402
  EARLIER FILING DATE: 1998-04-20
  EARLIER APPLICATION NUMBER: 60/069,012
; EARLIER FILING DATE: 1997-12-10
; NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
   LENGTH: 11
    TYPE: PRT
    ORGANISM: human
US-09-208-966-16
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches
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                                               0; Indels
                                                                0; Gaps
  Matches
           5 RQR 7
Qу
             111
           6 RQR 8
Db
RESULT 41
US-09-208-966-52
; Sequence 52, Application US/09208966
; Patent No. 6221355
; GENERAL INFORMATION:
 APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/208,966
; CURRENT FILING DATE: 1998-12-10
; EARLIER APPLICATION NUMBER: 60/082,402
; EARLIER FILING DATE: 1998-04-20
; EARLIER APPLICATION NUMBER: 60/069,012
   EARLIER FILING DATE: 1997-12-10
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ORGANISM: human

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NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 52
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-208-966-52
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
  Matches
           3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                             0;
Qу
            5 RQR 7
              111
Db
            7 RQR 9
RESULT 42
US-08-647-405B-6
; Sequence 6, Application US/08647405B
: Patent No. 6228654
; GENERAL INFORMATION:
  APPLICANT: Chait, Brian T.
              Zhao, Yingming
  APPLICANT:
  APPLICANT: Kent, Stephen B.H.
  TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
  FILE REFERENCE: Oligosaccharides
  CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Related to
   OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-6
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           8 KDT 10
Qy
             \perp
            4 KDT 6
RESULT 43
US-09-177-249-204
; Sequence 204, Application US/09177249
; Patent No. 6229064
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert L.
  APPLICANT: Ohad, Nir
; APPLICANT: Kiyosue, Tomohiro
```

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APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
  APPLICANT: Goldberg, Robert B.
   APPLICANT: The Regents of the University of California
   TITLE OF INVENTION: Nucleic Acids That Control Seed and Fruit
   TITLE OF INVENTION: Development in Plants
   FILE REFERENCE: 023070-086120US
   CURRENT APPLICATION NUMBER: US/09/177,249
   CURRENT FILING DATE: 1998-10-22
   EARLIER APPLICATION NUMBER: US 09/071,838
   EARLIER FILING DATE: 1998-05-01
   NUMBER OF SEQ ID NOS: 324
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 204
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Arabidopsis sp.
US-09-177-249-204
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            7 RKD 9
Qy
              \perp
            3 RKD 5
Db
RESULT 44
US-09-315-444-65
; Sequence 65, Application US/09315444A
; Patent No. 6232070
; GENERAL INFORMATION:
  APPLICANT: Shuman, Stewart
  TITLE OF INVENTION: Pharmacological Targeting of mRNA Cap Formation
  FILE REFERENCE: D6185CIP
  CURRENT APPLICATION NUMBER: US/09/315,444A
  CURRENT FILING DATE: 1999-05-20
  PRIOR APPLICATION NUMBER: US 09/188,579
  PRIOR FILING DATE: 1998-11-09
  NUMBER OF SEQ ID NOS: 116
; SEQ ID NO 65
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: vaccinia virus
   OTHER INFORMATION: Motif V of RNA guanylyltransferase.
US-09-315-444-65
 Query Match
                          27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 2.3e+03;
 Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                     Gaps
                                                                             0;
            2 KKE 4
Qv ·
              \perp 1 \perp 1
            5 KKE 7
Db
```

```
RESULT 45
US-09-532-106-12
; Sequence 12, Application US/09532106
; Patent No. 6245895
    GENERAL INFORMATION:
        APPLICANT: SALLBERG, MATTI
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
      NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
             ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Diskette
             COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/532,106
              FILING DATE: 21-Mar-2000
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/737,085A
              FILING DATE: 27-DEC-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Green, Reza
             REGISTRATION NUMBER: 38,475
             REFERENCE/DOCKET NUMBER: 3846/0C569
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 212-527-7659
             TELEFAX: 212-753-6237
             TELEX: 236687
   INFORMATION FOR SEQ ID NO: 12:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
             STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-532-106-12
 Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           6 ORK 8
Qу
             1 QRK 3
```

```
US-09-338-546-1
; Sequence 1, Application US/09338546
; Patent No. 6251645
  GENERAL INFORMATION:
    APPLICANT: KIRSCHBAUM, Bernd
    APPLICANT: MUELLNER, Stefan
    APPLICANT: BARTLETT, Robert
    TITLE OF INVENTION: NOVEL DEAH-BOX PROTEINS
    NUMBER OF SEQUENCES: 38
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Foley & Lardner
      STREET: 3000 K Street, N.W., Suite 500
      CITY: Washington
     STATE: D.C.
     COUNTRY: USA
     ZIP: 20007-5109
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/338,546
      FILING DATE:
      CLASSIFICATION:
ï
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/760,075
;
      FILING DATE: 04-DEC-1996
     APPLICATION NUMBER: DE 19545126.0
     FILING DATE: 04-DEC-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: GRANADOS, Patricia D.
      REGISTRATION NUMBER: 33,683
      REFERENCE/DOCKET NUMBER: 18748/309
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202) 672-5300
;
      TELEFAX: (202) 672-5399
      TELEX: 904136
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-09-338-546-1
 Query Match
                        27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
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                                                                          0;
           2 KKE 4
Qу
             -111
Db
           9 KKE 11
```

RESULT 47 US-09-142-732-6

```
; Sequence 6, Application US/09142732
; Patent No. 6252045
 GENERAL INFORMATION:
    APPLICANT: James M. Anderson
    APPLICANT: Christina M. Van Itallie
     TITLE OF INVENTION: Human Occludin, Its Uses and
    TITLE OF INVENTION: Enhancement of Drug Absorption Using Occludin
Inhibitors
    NUMBER OF SEQUENCES: 6
     CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Yale University Medical School
      ADDRESSEE: Section of Digestive Diseases
      ADDRESSEE: Department of Internal Medicine
      STREET: 333 Cedar Street, LCI 105
      CITY: New Haven
      STATE: Connecticut
       COUNTRY: United States of America
      ZIP: 06520-8057
ï
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" 1.44 Mb diskette
      COMPUTER: IBM PC
      OPERATING SYSTEM: MS DOS
      SOFTWARE: Word Processing
    CURRENT APPLICATION DATA:
;
     APPLICATION NUMBER: US/09/142,732
      FILING DATE:
;
      CLASSIFICATION:
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US97/05809
      FILING DATE: March 14, 1997
      APPLICATION NUMBER: U.S. 60/013,625
      FILING DATE: March 15, 1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Mary M. Krinsky
      REGISTRATION NUMBER: 32423
      REFERENCE/DOCKET NUMBER: 1751-P0016B.PCT
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 203-324-6155
      TELEFAX: 203-327-1096
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE:
     DESCRIPTION: peptide
    FRAGMENT TYPE: synthetic peptide
    FEATURE:
      OTHER INFORMATION: construct used in experi-
      OTHER INFORMATION: ments
US-09-142-732-6
 Query Match
                        27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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```

```
7 RKD 9
QУ
             7 RKD 9
Dh
RESULT 48
US-09-044-411-1
; Sequence 1, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
  APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
; FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/044,411A
  CURRENT FILING DATE: 1998-03-19
; NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: an extra Cys not found in natural protein.
;
   FEATURE:
   NAME/KEY: SITE
   LOCATION: (10)
   OTHER INFORMATION: Xaa is either Cys(biotin) or Lys(biotin) at this
   OTHER INFORMATION: position.
   FEATURE:
   NAME/KEY: BINDING
    LOCATION: (10)
    OTHER INFORMATION: Either Cys(biotin) or Lys(biotin) at this
    OTHER INFORMATION: position.
    FEATURE:
    OTHER INFORMATION: Peptide has an N-terminal carboxylic acid residue.
    OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-1
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
                               0; Mismatches
                                                                 0; Gaps
                                                                             0;
  Matches
           3; Conservative
                                                  0; Indels
            5 RQR 7
Qy
             -111
Db
            5 RQR 7
RESULT 49
US-09-044-411-2
; Sequence 2, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
  APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
```

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CURRENT APPLICATION NUMBER: US/09/044,411A
  CURRENT FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: two extra Cys residues not found in thenatural
   OTHER INFORMATION: protein.
   FEATURE:
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: Cys(biotin)
   FEATURE:
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   FEATURE:
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-2
 Query Match
                          27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
            5 RQR 7
Qу
             111
Db
            5 RQR 7
RESULT 50
US-09-044-411-3
; Sequence 3, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/044,411A
  CURRENT FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
   LENGTH: 11
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: an extra Lys and an extra Cys not found in the
   OTHER INFORMATION: natural protein.
   FEATURE:
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: Lys(biotin)
   FEATURE:
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
```

```
OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-3
  Query Match
                          27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches
           3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                               0; Gaps
                                                                            0;
Qу
            5 RQR 7
             5 RQR 7
Db
RESULT 51
US-09-044-411-4
; Sequence 4, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
; FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/044,411A
  CURRENT FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: two extra Cys not found in the natural protein.
   FEATURE:
   NAME/KEY: SITE
   LOCATION: (10)
   OTHER INFORMATION: Cys is the D isomer at this position.
   FEATURE:
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: D-Cys(biotin)
   FEATURE:
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   FEATURE:
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-4
 Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0;
 Matches
                                                     Indels
                                                                0; Gaps
                                                                            0;
           5 RQR 7
Qy
             III
Db
           5 RQR 7
```

RESULT 52 US-09-044-411-5

FEATURE:

```
; Sequence 5, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
   FILE REFERENCE: 601-1-083
   CURRENT APPLICATION NUMBER: US/09/044,411A
   CURRENT FILING DATE: 1998-03-19
   NUMBER OF SEQ ID NOS: 10
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: an extra Lys and an extra Cys not found in the
   OTHER INFORMATION: natural protein.
   FEATURE:
   NAME/KEY: SITE
   LOCATION: (10)
   OTHER INFORMATION: Lys is D isomer at this position.
   FEATURE:
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: D-Lys(biotin)
   FEATURE:
;
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   FEATURE:
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-5
 Query Match
                          27.3%; Score 3; DB 3; Length 11;
                          100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
            3; Conservative
                              0; Mismatches 0; Indels
 Matches
                                                                 0; Gaps
                                                                             0;
            5 RQR 7
Qу
              111
Dh
            5 RQR 7
RESULT 53
US-09-044-411-6
; Sequence 6, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
 APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/044,411A
  CURRENT FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
;
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
```

```
FEATURE:
    OTHER INFORMATION: Same as Sequence ID 3, but with a substitution of
; Patent No. 6258774
    OTHER INFORMATION: Arg to Gln.
    FEATURE:
    NAME/KEY: SITE
    LOCATION: (10)
    OTHER INFORMATION: Lys is the D isomer at this position.
    FEATURE:
    NAME/KEY: BINDING
    LOCATION: (10)
   OTHER INFORMATION: D-Lys(biotin)
    OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   FEATURE:
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-6
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 ROR 7
Qу
             -111
            5 ROR 7
Db
RESULT 54
US-09-044-411-8
; Sequence 8, Application US/09044411A
; Patent No. 6258774
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/044,411A
  CURRENT FILING DATE: 1998-03-19
; NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
;
   FEATURE:
;
   OTHER INFORMATION: All amino acids in this sequence are D amino acid.
;
   FEATURE:
   NAME/KEY: BINDING
   LOCATION: (2)
   OTHER INFORMATION: D-Lys(biotin)
   FEATURE:
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   FEATURE:
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-044-411-8
 Query Match
                         27.3%; Score 3; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
```

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3; Conservative
  Matches
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
            5 RQR 7
Qу
             5 RQR 7
Db
RESULT 55
US-09-133-062D-28
; Sequence 28, Application US/09133062D
; Patent No. 6258776
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
  APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/09/133,062D
   CURRENT FILING DATE: 1998-08-12
;
  PRIOR APPLICATION NUMBER: GB 9717089.8
  PRIOR FILING DATE: 1997-08-12
  PRIOR APPLICATION NUMBER: GB 9717499.9
;
   PRIOR FILING DATE: 1998-08-19
  NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 28
;
   LENGTH: 11
;
   TYPE: PRT
;
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:synthetic peptide
    OTHER INFORMATION: internal peptide
US-09-133-062D-28
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
            3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
           1 AKK 3
Qу
             Db
           3 AKK 5
RESULT 56
US-09-133-062D-29
; Sequence 29, Application US/09133062D
; Patent No. 6258776
; GENERAL INFORMATION:
  APPLICANT: Hemmings, Brian A
 APPLICANT: Millward, Thomas A
  TITLE OF INVENTION: Calcium Regulated Kinase
  FILE REFERENCE: 30110
  CURRENT APPLICATION NUMBER: US/09/133,062D
  CURRENT FILING DATE: 1998-08-12
 PRIOR APPLICATION NUMBER: GB 9717089.8
  PRIOR FILING DATE: 1997-08-12
; PRIOR APPLICATION NUMBER: GB 9717499.9
; PRIOR FILING DATE: 1998-08-19
```

```
NUMBER OF SEQ ID NOS: 34
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 29
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:synthetic peptide
   OTHER INFORMATION: internal peptide
US-09-133-062D-29
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           1 AKK 3
Qу
             \Box
           3 AKK 5
Db
RESULT 57
US-09-275-265-3
; Sequence 3, Application US/09275265
; Patent No. 6287761
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
;
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
      ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/09/275,265
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE: 21-FEB-1995
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
```

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APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
     NAME: SADOFF, B.J.
     REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 7038164000
       TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-275-265-3
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
            6 QRK 8
Qу
             III
           1 QRK 3
Db
RESULT 58
US-09-057-897-8
; Sequence 8, Application US/09057897
; Patent No. 6300476
  GENERAL INFORMATION:
    APPLICANT: Lu, Anthony Y.H. APPLICANT: Wang, Regina W.
;
    TITLE OF INVENTION: Anti-Peptide Antibody Against Human
    TITLE OF INVENTION: Cytochrome P450 3A4
    NUMBER OF SEQUENCES: 36
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Merck & Co., Inc.
      STREET: P.O. Box 2000
      CITY: Rahway
      STATE: NJ
      COUNTRY: US
;
      ZIP: 07065-0907
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/09/057,897
;
      FILING DATE:
;
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: Hand, J. Mark
;
      REGISTRATION NUMBER: 36,545
      REFERENCE/DOCKET NUMBER: 19902
```

```
TELECOMMUNICATION INFORMATION:
       TELEPHONE: (732)594-3905
;
       TELEFAX: (732) 594-4720
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-057-897-8
  Query Match
                         27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                           0;
           9 DTQ 11
Qу
             Db
           7 DTQ 9
RESULT 59
US-09-057-897-13
; Sequence 13, Application US/09057897
; Patent No. 6300476
  GENERAL INFORMATION:
    APPLICANT: Lu, Anthony Y.H.
    APPLICANT: Wang, Regina W.
    TITLE OF INVENTION: Anti-Peptide Antibody Against Human
    TITLE OF INVENTION: Cytochrome P450 3A4
    NUMBER OF SEQUENCES: 36
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merck & Co., Inc.
      STREET: P.O. Box 2000
      CITY: Rahway
      STATE: NJ
      COUNTRY: US
      ZIP: 07065-0907
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/09/057,897
      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: Hand, J. Mark
      REGISTRATION NUMBER: 36,545
;
      REFERENCE/DOCKET NUMBER: 19902
;
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (732) 594-3905
      TELEFAX: (732) 594-4720
  INFORMATION FOR SEQ ID NO: 13:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
```

```
TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-09-057-897-13
  Query Match
                          27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative
                              0; Mismatches 0; Indels
                                                              0; Gaps
                                                                             0;
           9 DTQ 11
Qу
             -111
Db
            4 DTQ 6
RESULT 60
US-09-057-897-18
; Sequence 18, Application US/09057897
; Patent No. 6300476
; GENERAL INFORMATION:
    APPLICANT: Lu, Anthony Y.H.
    APPLICANT: Wang, Regina W.
    TITLE OF INVENTION: Anti-Peptide Antibody Against Human
    TITLE OF INVENTION: Cytochrome P450 3A4 NUMBER OF SEQUENCES: 36
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Merck & Co., Inc.
      STREET: P.O. Box 2000
     CITY: Rahway
      STATE: NJ
      COUNTRY: US
      ZIP: 07065-0907
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/057,897
      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: Hand, J. Mark
      REGISTRATION NUMBER: 36,545
      REFERENCE/DOCKET NUMBER: 19902
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (732)594-3905
      TELEFAX: (732)594-4720
  INFORMATION FOR SEQ ID NO: 18:
;
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-057-897-18
```

```
Query Match
                         27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                        0;
           9 DTQ 11
Qу
             \perp
           1 DTQ 3
RESULT 61
US-09-296-089-37
; Sequence 37, Application US/09296089
; Patent No. 6303576
; GENERAL INFORMATION:
 APPLICANT: Blaschuk, Orest W.
  APPLICANT: Byers, Stephen
; APPLICANT: Gour, Barbara J.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING
; TITLE OF INVENTION: BETA-CATENIN MEDIATED GENE EXPRESSION
; FILE REFERENCE: 100086.411
; CURRENT APPLICATION NUMBER: US/09/296,089
; CURRENT FILING DATE: 1999-04-21
 NUMBER OF SEQ ID NOS: 37
 SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 37
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus
US-09-296-089-37
 Query Match
                         27.3%; Score 3; DB 4; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                           0;
Qy
           5 ROR 7
             Dh
           7 RQR 9
RESULT 62
US-09-025-596-34
; Sequence 34, Application US/09025596
; Patent No. 6340463
; GENERAL INFORMATION:
; APPLICANT: Mitchell, William M.
; APPLICANT: Stratton, Charles W.
; TITLE OF INVENTION: IDENTIFICATION OF ANTIGENIC PEPTIDE
; TITLE OF INVENTION: SEQUENCES
; FILE REFERENCE: VDB98-01
  CURRENT APPLICATION NUMBER: US/09/025,596
  CURRENT FILING DATE: 1998-02-18
; EARLIER APPLICATION NUMBER: 08/911,593
; EARLIER FILING DATE: 1997-08-14
 EARLIER APPLICATION NUMBER: 60/023,921
; EARLIER FILING DATE: 1996-08-14
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: FastSEQ for Windows Version 3.0
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```
; SEQ ID NO 34
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Chlamydia pneumoniae
US-09-025-596-34
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
QУ
             -111
            3 AKK 5
RESULT 63
US-09-115-737-111
; Sequence 111, Application US/09115737
; Patent No. 6348445
   GENERAL INFORMATION:
        APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
        TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
        NUMBER OF SEQUENCES: 156
        CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
        COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
        CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
              REGISTRATION NUMBER: 32,984
              REFERENCE/DOCKET NUMBER: 05387.0021-06000
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
```

```
INFORMATION FOR SEQ ID NO: 111:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 111:
US-09-115-737-111
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.3e+03;
            3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AKK 3
QУ
              Db
            1 AKK 3
RESULT 64
US-09-115-737-122
; Sequence 122, Application US/09115737
; Patent No. 6348445
    GENERAL INFORMATION:
         APPLICANT: U. Prasad Kari
;
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
;
         NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
              FILING DATE: 01-JUN-92
         ATTORNEY/AGENT INFORMATION:
              NAME: Fordis, Jean B
             REGISTRATION NUMBER: 32,984
```

```
REFERENCE/DOCKET NUMBER: 05387.0021-06000
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: (202) 408-4000
              TELEFAX: (202) 408-4400
   INFORMATION FOR SEQ ID NO: 122:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
;
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 122:
US-09-115-737-122
                          27.3%; Score 3; DB 4; Length 11;
 Query Match
                         100.0%; Pred. No. 2.3e+03;
 Best Local Similarity
 Matches
           3; Conservative
                              0; Mismatches 0;
                                                      Indels
                                                                     Gaps
                                                                             0;
            1 AKK 3
Qу
             7 AKK 9
RESULT 65
US-09-115-737-123
; Sequence 123, Application US/09115737
 Patent No. 6348445
   GENERAL INFORMATION:
        APPLICANT: U. Prasad Kari
                    Taffy J. Williams
                    Michael McLane
         TITLE OF INVENTION: Biologically Active Peptides With Reduced
                             Toxicity in Animals and a Method for Preparing Same
        NUMBER OF SEQUENCES: 156
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                         Dunner, L.L.P.
              STREET: 1300 I Street, N.W. Suite 700
              CITY: Washington
              STATE: D.C.
              COUNTRY: USA
              ZIP: 20005-3315
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.3
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/115,737
              FILING DATE: 15-Jul-1998
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/465,330
              FILING DATE: 05-JUN-1995
              APPLICATION NUMBER: 08/184,462
              FILING DATE: 18-JAN-94
              APPLICATION NUMBER: 07/891,201
```

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FILING DATE: 01-JUN-92
        ATTORNEY/AGENT INFORMATION:
             NAME: Fordis, Jean B
             REGISTRATION NUMBER: 32,984
             REFERENCE/DOCKET NUMBER: 05387.0021-06000
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (202) 408-4000
             TELEFAX: (202) 408-4400
    INFORMATION FOR SEQ ID NO: 123:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
;
             TYPE: amino acid
             STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 123:
US-09-115-737-123
                         27.3%; Score 3; DB 4; Length 11;
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 Best Local Similarity 100.0%; Pred. No. 2.3e+03;
            3; Conservative 0; Mismatches
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                                                                0; Gaps
           1 AKK 3
Qу
             7 AKK 9
RESULT 66
US-09-187-859-3110
; Sequence 3110, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
  APPLICANT: Blaschuk, Orest W.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
  NUMBER OF SEQ ID NOS: 4052
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3110
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmoglein cell adhesion recognition sequence
US-09-187-859-3110
 Query Match
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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Qу
              111
Db
            7 KDT 9
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RESULT 67
US-09-187-859-3155
; Sequence 3155, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
  APPLICANT: Blaschuk, Orest W.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
; TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3155
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmoqlein cell adhesion recognition sequence
US-09-187-859-3155
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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           3; Conservative
                              0; Mismatches 0; Indels
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            8 KDT 10
Qу
             -1
            7 KDT 9
Db
RESULT 68
US-09-187-859-3200
; Sequence 3200, Application US/09187859A
; Patent No. 6358920
: GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3200
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmoglein cell adhesion recognition sequence
US-09-187-859-3200
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Qу
            8 KDT 10
             lii
Db
            7 KDT 9
RESULT 69
US-09-187-859-3245
; Sequence 3245, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
  APPLICANT: Blaschuk, Orest W.
; APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
   CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
 NUMBER OF SEQ ID NOS: 4052
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3245
    LENGTH: 11
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    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Representative cyclic modulating agent based on
    OTHER INFORMATION: Desmoqlein cell adhesion recognition sequence
US-09-187-859-3245
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  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 2.3e+03;
  Matches
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            8 KDT 10
Qу
             +111
            7 KDT 9
RESULT 70
US-09-187-859-3290
; Sequence 3290, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
  APPLICANT: Blaschuk, Orest W.
 APPLICANT: Gour, Barbara J.
   TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
   TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
   FILE REFERENCE: 100086.407C1
   CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3290
   LENGTH: 11
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TYPE: PRT
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   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Representative cyclic modulating agent based on
    OTHER INFORMATION: Desmoglein cell adhesion recognition sequence
US-09-187-859-3290
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
 Matches
           3; Conservative 0; Mismatches
                                                 0; Indels
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           8 KDT 10
Qу
             \Box
Dh
           7 KDT 9
RESULT 71
US-09-187-859-3341
; Sequence 3341, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
  NUMBER OF SEQ ID NOS: 4052
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3341
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
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   FEATURE:
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmocollin cell adhesion recognition sequence
US-09-187-859-3341
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           8 KDT 10
Qу
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Db
RESULT 72
US-09-187-859-3383
; Sequence 3383, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
 APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
 TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
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FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
  NUMBER OF SEQ ID NOS: 4052
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 3383
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmocollin cell adhesion recognition sequence
US-09-187-859-3383
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                          100.0%; Pred. No. 2.3e+03;
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                                                       Indels
                                                                 0;
                                                                     Gaps
            8 KDT 10
Qγ
              +
Db
            7 KDT 9
RESULT 73
US-09-187-859-3425
; Sequence 3425, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
  APPLICANT: Blaschuk, Orest W.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
   FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
  NUMBER OF SEQ ID NOS: 4052
   SOFTWARE: PatentIn Ver. 2.0
 SEO ID NO 3425
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
ï
    OTHER INFORMATION: Representative cyclic modulating agent based on
    OTHER INFORMATION: Desmocollin cell adhesion recognition sequence
US-09-187-859-3425
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 2.3e+03;
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                                                   0;
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                              0; Mismatches
                                                      Indels
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            3; Conservative
            8 KDT 10
Qy
              IIII
            7 KDT 9
Db
RESULT 74
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US-09-187-859-3467

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; Sequence 3467, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
 APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
; CURRENT FILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3467
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmocollin cell adhesion recognition sequence
US-09-187-859-3467
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           8 KDT 10
Qу
             -111
           7 KDT 9
Db
RESULT 75
US-09-187-859-3509
; Sequence 3509, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
; APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
  TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C1
  CURRENT APPLICATION NUMBER: US/09/187,859A
  CURRENT FILING DATE: 1998-11-06
; NUMBER OF SEQ ID NOS: 4052
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3509
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   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Representative cyclic modulating agent based on
   OTHER INFORMATION: Desmocollin cell adhesion recognition sequence
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  Best Local Similarity 100.0%; Pred. No. 2.3e+03;
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Qy 8 KDT 10 | | | | | Db 7 KDT 9

Search completed: April  $\,$  8, 2004, 15:52:06 Job time : 12.3077 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 8.61538 Seconds

(without alignments)

122.816 Million cell updates/sec

Title: US-09-787-443A-2

Perfect score: 11

Sequence: 1 AKKERQRKDTQ 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size:

Total number of hits satisfying chosen parameters:

226

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: PIR\_78:\*

1: pir1:\*

2: pir2:\*

3: pir3:\*

3. pils.

4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	3	27.3	11	2	PT0217	T-cell receptor be
2	3	27.3	11	2	PD0441	translation elonga
3	2	18.2	11	1	EOOCC	eledoisin - curled
4	2	18.2	11	1	EOOC	eledoisin – musky
5	2	18.2	11	2	A38841	rhodopsin homolog
6	2	18.2	11	2	PQ0682	photosystem I 17.5
7	2	18.2	11	2	B26744	megascoliakinin -
8	2	18.2	. 11	2	D61033	ranatachykinin D -
9	2	18.2	11	2	S42449	ant1 protein - pha
10	2	18.2	11	2	JQ0395	hypothetical prote
11	2	18.2	11	2.	S66606	quinoline 2-oxidor
12	2	18.2	11	2	S58244	pyrroloquinoline q
13	2	18.2	11	2	B43669	hypothetical prote

14	2	18.2	11	2	PC2372	58K heat shock pro
15	2	18.2	11	2	s33519	probable secreted
16	2	18.2	11	2	PT0081	protein QA300023 -
	2	18.2				seed protein ws-23
17			11	2	G61497	
18	2	18.2	11	2	S19775	wound-induced prot
19	2	18.2	11	2	S41747	chaperonin 10 homo
20	2	18.2	11	2	A34135	DNA-binding protei
21	2	18.2	11	2	A61512	variant surface gl
22	2	18.2	11	2	A26120	6-phosphofructokin
23	2	18.2	11	2	E57789	gallbladder stone
24	2	18.2	11	2	PT0287	Ig heavy chain CRD
25	2	18.2	11	2	D56979	collagen alpha 1(I
26	2	18.2	11	2	A33571	follistatin - bovi
27	2	18.2	11	2	s78765	ribosomal protein
28	2	18.2	11	2	S54347	tubulin beta chain
29	2	18.2	11	2	A14454	6-phosphofructokin
30	2	18.2	11	2	A61483	pyridoxal kinase (
31	2	18.2	11	2	PN0664	dystrophin-associa
32	2	18.2	11	2	PH1583	Ig H chain V-D-J r
33	2	18.2	11	2	PN0044	protein kinase C i
34	2	18.2	11	2	PH1376	T antigen variant
35	2	18.2	11	2	s53436	beta-D-galactosida
36	2	18.2	11	2	s65377	cytochrome-c oxida
37	2	18.2	11	2	PH0903	T-cell receptor be
38	2	18.2	11	2	PH0904	T-cell receptor be
39	2	18.2	11	2	PH0922	T-cell receptor be
40	2	18.2	11	2	A48973	glucoamylase A1 (E
41	2	18.2	11	2	H84082	hypothetical prote
42	2	18.2	11	4	S19015	hypothetical prote
43	1	9.1	11	1	XAVIBH	bradykinin-potenti
44	1	9.1	11	1	XASNBA	bradykinin-potenti
45	1	9.1	11	1	ECLQ2M	tachykinin II - mi
46	1	9.1	11	1	SPHO	substance P - hors
47	1	9.1	11	1	A60654	substance P - guin
48	1	9.1	11	1.	GMROL	leucosulfakinin -
49	1	9.1	11	1	LFTWWE	probable trpEG lea
50	1	9.1	11	2	S66196	alcohol dehydrogen
51	1	9.1	11	2	G42762	proteasome endopep
52	1	9.1	11	2	S68392	H+-transporting tw
53	1	9.1	11	2	A33917	dihydroorotase (EC
54	1	9.1	11	2	B49164	chromogranin-B - r
55	1	9.1	11	2	JN0023	substance P - chic
56	1	9.1	11	2	s32575	ribosomal protein
57	1	9.1	11	2	A40693	transgelin - sheep
58	1	9.1	11	2	S00616	parasporal crystal
59	1	9.1	11	2	C53652	rhlR protein - Pse
60	1	9.1	11	2	S09074	cytochrome P450-4b
61	1	9.1	11	2	A57458	gene Gax protein -
62	1	9.1	11	2	A26930	ermG leader peptid
63	1	9.1	11	2	D60409	kassinin-like pept
64	1	9.1	11	2	F60409	substance P-like p
65	1	9.1	11	2	E60409	substance P-like p
66	1	9.1	11	2	YHRT	morphogenetic neur
67	1	9.1	11	2	YHHU	morphogenetic neur
68	1	9.1	11	2	YHBO	morphogenetic neur
69	1	9.1	11	2	YHXAE	morphogenetic neur
70	1	9.1	11	2	YHJFHY	morphogenetic neur

71	1	9.1	11	2	A61365	phyllokinin - Rohd
72	1	9.1	11	2	\$23308	substance P - rain
73	1	9.1	11	2	S23306	substance P - Atla
74	1	9.1	11	2	B60409	kassinin-like pept
75	1	9.1	11	2	C60409	kassinin-like pept
76	1	9.1	11	2	S07203	uperolein - frog (
77	1	9.1	11	2	S07207	Crinia-angiotensin
78	1	9.1	11	2	S07201	physalaemin - frog
79	1	9.1	11	2	A61033	ranatachykinin A -
80	1.	9.1	11	2	B58501	24K kidney and bla
81	1	9.1	11	2	D58502	27K bile and gallb
82	1	9.1	11	2	A58502	38K kidney stone p
83	1	9.1	11	2	C58501	42K bile stone pro
84	1	9.1	11	2	F58501	43.5K bile stone p
85	1	9.1	11	2	PQ0231	beta-glucosidase (
86	1	9.1	11	2	S04875	nifS protein - Bra
87	1	9.1	11	2	I41138	acetyl ornithine d
88	1	9.1	11	2	S42587	celF protein - Esc
89	1	9.1	11	2	S35490	type II site-speci
90	1	9.1	11	2	S21127	precorrin methyltr
91	1	9.1	11	2	s70720	trigger factor hom
92	1	9.1	11	2	S33782	acetolactate synth
93	1	9.1	11	2	B39853	LuxC protein - Pho
94	1	9.1	11	2	A58838	hemolysin - Porphy
95	1	9.1	11	2	E60691	phycobilisome 8K l
96	1	9.1	11	2	D60691	phycobilisome 9K l
97	1	9.1	11	2	PC2330	cycloinulooligosac
98	1	9.1	11	2	B41835	translation elonga
99	1	9.1	11	2	S14087	parasporal crystal
100	1	9.1	11	2	A44755	20alpha-hydroxyste

## ALIGNMENTS

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RESULT 1
PT0217
T-cell receptor beta chain V-J region (4-1-E.2) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0217
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0217
A; Molecule type: mRNA
A; Residues: 1-11 < NAK>
C; Keywords: T-cell receptor
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 2.9e+03;
 Best Local Similarity
            3; Conservative
                              0; Mismatches 0; Indels 0; Gaps
 Matches
                                                                             0;
            9 DTQ 11
Qу
              \Pi\Pi
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RESULT 2
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
(fragment)
C; Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text change 21-Aug-1998
C; Accession: PD0441
R;Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
C; Keywords: mitochondrion
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  Best Local Similarity 100.0%; Pred. No. 2.9e+03;
                                                                               0;
             3; Conservative
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                                                    0; Indels
                                                                  0; Gaps
            1 AKK 3
Qу
              \perp
Db
            4 AKK 6
RESULT 3
EOOCC
eledoisin - curled octopus
C; Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 20-Mar-1998
C; Accession: B01561; A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: B01561
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                          18.2%;
  Query Match
                                  Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%;
                                  Pred. No. 3.2e+04;
            2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            8 KD 9
Qy
            4 KD 5
```

```
RESULT 4
EOOC
eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: A01561
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                               0;
             2; Conservative
                                                    0;
                                                        Indels
                                                                  0; Gaps
            8 KD 9
Qу
              11
Db
            4 KD 5
RESULT 5
A38841
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
C; Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text_change 31-Oct-1997
C; Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
pigment.
A; Reference number: PT0063; MUID: 89051045; PMID: 3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F;3/Binding site: retinal (Lys) (covalent) #status experimental
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
             2: Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
Qу
            1 AK 2
Db
            2 AK 3
```

```
RESULT 6
PQ0682
photosystem I 17.5K D2 chain - common tobacco (fragment)
C; Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text change 17-Mar-1999
C; Accession: PQ0682
R;Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A; Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and
psaL are all present in isoforms in Nicotiana spp.
A; Reference number: PQ0667; MUID: 94105345; PMID: 8278548
A; Accession: PQ0682
A; Molecule type: protein
A; Residues: 1-11 <OBO>
C; Superfamily: photosystem I chain II
C; Keywords: chloroplast; photosynthesis; photosystem I; thylakoid
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.2e+04;
                                                                              0;
             2; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
  Matches
Qy
            3 KE 4
              \mathbf{H}
Db
            7 KE 8
RESULT 7
B26744
megascoliakinin - garden dagger wasp
N; Alternate names: 6-Thr-bradykinin-Lys-Ala
C; Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text_change 18-Aug-2000
C; Accession: B26744; A28609
R; Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.
Toxicon 25, 527-535, 1987
A; Title: Two kinins isolated from an extract of the venom reservoirs of the
solitary wasp Megascolia flavifrons.
A; Reference number: A94322; MUID: 87293024; PMID: 3617088
A; Accession: B26744
A; Molecule type: protein
A; Residues: 1-11 <YAS>
R; Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A; Title: Two kinins isolated from the venom of Megascolia flavifrons.
A; Reference number: A28609
A; Accession: A28609
A; Molecule type: protein
A; Residues: 1-11 < NAK>
C; Superfamily: unassigned animal peptides
C; Keywords: bradykinin; presynaptic neurotoxin; venom
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3.2e+04;
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            7 RK 8
Qу
```

Best Local Similarity

RESULT 8 D61033 ranatachykinin D - bullfrog C; Species: Rana catesbeiana (bullfrog) C; Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 18-Aug-2000 C; Accession: D61033; JE0429 R; Kangawa, K.; Kozawa, H.; Hino, J.; Minamino, N.; Matsuo, H. Regul. Pept. 42(Suppl.1), S12, 1992 A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain and intestine. A; Reference number: A61033 A; Accession: D61033 A; Molecule type: protein A; Residues: 1-11 <KAN> R; Kozawa, H.; Hino, J.; Minamino, N.; Kangawa, K.; Matsuo, H. Biochem. Biophys. Res. Commun. 177, 588-595, 1991 A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain and intestine. A; Reference number: JE0426; MUID: 91254337; PMID: 2043143 A; Accession: JE0429 A; Molecule type: protein A; Residues: 1-11 <KOZ> C; Superfamily: unassigned animal peptides C; Keywords: amidated carboxyl end; neuropeptide F;11/Modified site: amidated carboxyl end (Met) #status experimental Query Match 18.2%; Score 2; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 3.2e+04; Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 4 ER 5 Qу 5 ER 6 Db RESULT 9 S42449 antl protein - phage P7 C; Species: phage P7 C; Date: 07-Sep-1994 #sequence revision 26-May-1995 #text change 08-Oct-1999 C; Accession: S42449 R; Citron, M.; Schuster, H. Cell 62, 591-598, 1990 A; Title: The c4 repressors of bacteriophages P1 and P7 are antisense RNAs. A; Reference number: S42448; MUID: 90335968; PMID: 1696181 A; Accession: S42449 A; Status: preliminary; translation not shown A; Molecule type: DNA A; Residues: 1-11 <CIT> A; Cross-references: EMBL: M35139; NID: g215705; PIDN: AAA32437.1; PID: g215707 Query Match 18.2%; Score 2; DB 2; Length 11;

100.0%; Pred. No. 3.2e+04;

```
Matches
             2; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KK 3
Qy
              -1.1
Dh
            2 KK 3
RESULT 10
JQ0395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A; Accession: JQ0395
A; Molecule type: DNA
A; Residues: 1-11 <GOE>
A; Cross-references: GB:L18897
A; Experimental source: strain ORS571
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
                                0; Mismatches
  Matches
             2: Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 KK 3
Qу
              11
            6 KK 7
Db
RESULT 11
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
C; Date: 15-Feb-1997 #sequence revision 13-Mar-1997 #text change 17-Mar-1999
C; Accession: S66606
R; Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A; Title: Quinoline 2-oxidoreductase and 2-oxo-1, 2-dihydroquinoline 5,6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A; Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
  Matches
             2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
Db 1 AK 2
```

```
RESULT 12
S58244
pyrroloquinoline quinone synthesis C - Pseudomonas fluorescens (fragment)
C; Species: Pseudomonas fluorescens
C;Date: 13-Jan-1996 #sequence revision 01-Mar-1996 #text change 08-Oct-1999
C; Accession: S58244
R; Schnider, U.; Keel, C.; Defago, G.; Haas, D.
submitted to the EMBL Data Library, May 1995
A; Description: Tn5-directed cloning of pqq genes from Pseudomonas fluorescens
CHAO: their involvement in the production of the antibiotic pyoluteorin.
A; Reference number: S58239
A; Accession: S58244
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <SCH>
A; Cross-references: EMBL: X87299; NID: q929799; PIDN: CAA60734.1; PID: q929806
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
                                                    0;
             2; Conservative
                                 0; Mismatches
                                                       Indels
                                                                   0; Gaps
                                                                               0:
            9 DT 10
Qу
              \perp
Db
            3 DT 4
RESULT 13
B43669
hypothetical protein (rhdA 5' region) - Synechococcus sp. (fragment)
C; Species: Synechococcus sp.
C; Date: 03-Mar-1993 #sequence revision 03-Mar-1993 #text change 30-Sep-1993
C; Accession: B43669
R; Laudenbach, D.E.; Ehrhardt, D.; Green, L.; Grossman, A.
J. Bacteriol. 173, 2751-2760, 1991
A; Title: Isolation and characterization of a sulfur-regulated gene encoding a
periplasmically localized protein with sequence similarity to rhodanese.
A; Reference number: A43669; MUID: 91210163; PMID: 1708376
A; Accession: B43669
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <LAU>
A:Cross-references: GB:M65244
  Query Match
                          18.2%;
                                 Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                 0; Mismatches
  Matches
             2; Conservative
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
Qy
            1 AK 2
              14
Dh
            6 AK 7
```

```
PC2372
58K heat shock protein groEL [similarity] - Bacillus cereus (strain ts-4)
(fragment)
C;Species: Bacillus cereus
C;Date: 20-Apr-2000 #sequence revision 20-Apr-2000 #text change 20-Apr-2000
C; Accession: PC2372
R; Matsuno, K.; Miyamoto, T.; Yamaguchi, K.; Sayed, M.A.; Kajiwara, T.; Hatano,
Biosci. Biotechnol. Biochem. 59, 231-235, 1995
A; Title: Identification of DNA-binding proteins changed after induction of
sporulation in Bacillus cereus.
A; Reference number: PC2369; MUID: 95218265; PMID: 7766022
A; Accession: PC2372
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MAS>
C; Keywords: heat shock; molecular chaperone; stress-induced protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
                                0; Mismatches
                                                  0; Indels
            1 AK 2
Qу
              - | - |
            1 AK 2
Db
RESULT 15
S33519
probable secreted protein - Acholeplasma laidlawii (fragment)
C; Species: Acholeplasma laidlawii
C;Date: 06-Jan-1995 #sequence revision 06-Jan-1995 #text change 22-Oct-1999
C; Accession: S33519
R; Boyer, M.J.; Jarhede, T.K.; Tegman, V.; Wieslander, A.
submitted to the EMBL Data Library, June 1993
A; Description: Sequence regions from Acholeplasma laidlawii which restore export
of beta-lactamase in Escherichia coli.
A; Reference number: S33518
A; Accession: S33519
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <BOY>
A; Cross-references: EMBL: Z22875; NID: q311706; PIDN: CAA80495.1; PID: q311708
 Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                                                              0;
  Matches
             2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
Qу
            2 KK 3
              11
Db '
            2 KK 3
RESULT 16
PT0081
protein QA300023 - Arabidopsis thaliana (fragment)
C; Species: Arabidopsis thaliana (mouse-ear cress)
```

```
C;Date: 07-Feb-1996 #sequence revision 19-Apr-1996 #text change 24-Nov-1999
C; Accession: PT0081
R; Tsugita, A.; Kamo, M.; Kawakami, M.; Ohki, Y.
submitted to JIPID, December 1995
A; Description: Two dimensional electrophoresis of plant proteins and
standardization of the gel patterns.
A: Reference number: PN0173
A; Accession: PT0081
A; Molecule type: protein
A; Residues: 1-11 <TSU>
A; Experimental source: Leaf
C; Keywords: acetylated amino end
F;1/Modified site: acetylated amino end (Ser) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                              0; Mismatches
                                                                              0;
                                                 0; Indels
                                                                  0; Gaps
             2; Conservative
  Matches
            3 KE 4
Qу
              11
            2 KE 3
Db
RESULT 17
G61497
seed protein ws-23 - winged bean (fragment)
C; Species: Psophocarpus tetragonolobus (winged bean)
C;Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text_change 07-Oct-1994
C; Accession: G61497
R; Hirano, H.
J. Protein Chem. 8, 115-130, 1989
A; Title: Microsequence analysis of winged bean seed proteins electroblotted from
two-dimensional gel.
A; Reference number: A61491; MUID: 89351606; PMID: 2765119
A; Accession: G61497
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HIR>
C; Keywords: glycoprotein; seed
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                0; Mismatches
  Matches
             2; Conservative
                                                   0; Indels
            1 AK 2
Qу
              11
            1 AK 2
Db
RESULT 18
S19775
wound-induced protein - tomato (fragment)
C; Species: Lycopersicon esculentum (tomato)
C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text change 09-Sep-1997
C; Accession: S19775
R; Parsons, B.L.
submitted to the EMBL Data Library, May 1991
```

```
A; Accession: S19775
A; Molecule type: mRNA
A; Residues: 1-11 < PAR>
A; Cross-references: EMBL: X59884; NID: g19323; PID: g19324
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            2; Conservative
            2 KK 3
Qy
              11
            5 KK 6
Db
RESULT 19
S41747
chaperonin 10 homolog - potato (fragment)
C; Species: Solanum tuberosum (potato)
C;Date: 19-Mar-1997 #sequence revision 29-Aug-1997 #text change 07-May-1999
C; Accession: S41747
R; Burt, W.J.E.; Leaver, C.J.
FEBS Lett. 339, 139-141, 1994
A; Title: Identification of a chaperonin-10 homologue in plant mitochondria.
A; Reference number: S41747; MUID: 94148071; PMID: 7906228
A; Accession: S41747
A; Molecule type: protein
A; Residues: 1-11 <BUR>
A; Experimental source: mitochondrion
C; Keywords: mitochondrion; molecular chaperone
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                              0; Mismatches
                                                                               0;
  Matches
             2; Conservative
                                                    0; Indels
                                                                  0; Gaps
Qy
           10 TQ 11
              11
Db
            9 TQ 10
RESULT 20
A34135
DNA-binding protein p - Crithidia fasciculata mitochondrion (fragment)
C; Species: mitochondrion Crithidia fasciculata
C;Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text change 07-Dec-1999
C; Accession: A34135
R; Tittawella, I.
FEBS Lett. 260, 57-61, 1990
A; Title: Kinetoplast DNA-aggregating proteins from the parasitic protozoan
Crithidia fasciculata.
A; Reference number: A34135
A; Accession: A34135
A; Molecule type: protein
A; Residues: 1-11 <TIT>
C; Genetics:
A; Genome: mitochondrion
A; Genetic code: SGC6
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A; Reference number: S19773

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C; Keywords: mitochondrion
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
                                                                              0;
  Matches
            2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            7 RK 8
Qу
              8 RK 9
Db
RESULT 21
A61512
variant surface glycoprotein MITat 1.7 - Trypanosoma brucei (fragment)
C; Species: Trypanosoma brucei
C; Date: 28-Oct-1994 #sequence revision 28-Oct-1994 #text change 07-May-1999
C; Accession: A61512
R; Holder, A.A.; Cross, G.A.M.
Mol. Biochem. Parasitol. 2, 135-150, 1981
A; Title: Glycopeptides from variant surface glycoproteins of Trypanosoma brucei.
C-terminal location of antigenically cross-reacting carbohydrate moieties.
A; Reference number: A61512; MUID: 81172836; PMID: 6163983
A; Accession: A61512
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HOL>
C; Keywords: glycoprotein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
           10 TQ 11
              | \cdot |
Db
            5 TQ 6
RESULT 22
A26120
6-phosphofructokinase (EC 2.7.1.11) - pig roundworm (fragment)
N; Alternate names: phosphofructokinase; phosphohexokinase
C; Species: Ascaris suum (pig roundworm)
C;Date: 15-Dec-1988 #sequence revision 15-Dec-1988 #text change 28-Apr-1993
C; Accession: A26120
R; Kulkarni, G.; Rao, G.S.J.; Srinivasan, N.G.; Hofer, H.W.; Yuan, P.M.; Harris,
B.G.
J. Biol. Chem. 262, 32-34, 1987
A; Title: Ascaris suum phosphofructokinase. Phosphorylation by protein kinase and
sequence of the phosphopeptide.
A; Reference number: A26120; MUID: 87083467; PMID: 3025208
A; Accession: A26120
A; Molecule type: protein
A; Residues: 1-11 <KUL>
C; Keywords: glycolysis; phosphotransferase
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
```

100.0%; Pred. No. 3.2e+04;

Best Local Similarity

```
Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AK 2
Qу
              \Box
Db
            1 AK 2
RESULT 23
E57789
gallbladder stone matrix protein, 25K - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence revision 23-Feb-1996 #text change 23-Feb-1996
C; Accession: E57789
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, February 1996
A; Description: The proteins of gallbladder stones.
A; Reference number: A57789
A; Accession: E57789
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
  Matches
             2; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            7 RK 8
Qy
              Db
            2 RK 3
RESULT 24
PT0287
Ig heavy chain CRD3 region (clone 4-103) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 16-Aug-1996
C; Accession: PT0287
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID: 91108337; PMID: 1899102
A; Accession: PT0287
A; Molecule type: DNA
A; Residues: 1-11 < YAM>
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer; immunoglobulin
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
           10 TQ 11
Qy
              II
```

Db

7 TQ 8

```
RESULT 25
D56979
collagen alpha 1(II) chain - bovine (fragment)
N; Alternate names: collagen alpha 3(XI) chain
C; Species: Bos primigenius taurus (cattle)
C;Date: 03-Oct-1995 #sequence revision 03-Oct-1995 #text change 11-Jul-1997
C; Accession: D56979
R; Wu, J.J.; Eyre, D.R.
J. Biol. Chem. 270, 18865-18870, 1995
A; Title: Structural analysis of cross-linking domains in cartilage type XI
collagen. Insights on polymeric assembly.
A; Reference number: A56978; MUID: 95370194; PMID: 7642541
A; Accession: D56979
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <WUA>
C; Keywords: pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) (in mature form 3(XI))
#status experimental
                          18.2%;
                                  Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
  Matches
             2; Conservative
            5 RO 6
Qy
              11
Db
            4 RQ 5
RESULT 26
A33571
follistatin - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 30-Sep-1993
C; Accession: A33571
R; Gospodarowicz, D.; Lau, K.
Biochem. Biophys. Res. Commun. 165, 292-298, 1989
A; Title: Pituitary follicular cells secrete both vascular endothelial growth
factor and follistatin.
A; Reference number: A33571; MUID: 90073725; PMID: 2590228
A; Accession: A33571
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <GOS>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                                                              0;
             2; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
  Matches
            1 AK 2
Qу
              Db
            8 AK 9
RESULT 27
S78765
ribosomal protein MRP-S24, mitochondrial - bovine (fragment)
```

```
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Sep-1999 #sequence revision 20-Sep-1999 #text change 20-Sep-1999
C; Accession: S78765
R; Graack, H.R.
submitted to the Protein Sequence Database, July 1999
A; Reference number: S78760
A: Accession: S78765
A; Molecule type: protein
A; Residues: 1-11 <GRA>
C; Keywords: mitochondrion
F;1-11/Product: ribosomal protein MRP-S24 (fragment) #status experimental <MAT>
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
  Matches
             2; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            8 KD 9
QУ
              11
            7 KD 8
Dh
RESULT 28
S54347
tubulin beta chain - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C; Date: 27-Oct-1995 #sequence revision 30-Jan-1998 #text change 07-May-1999
C; Accession: S54347
R;Okazaki, K.; Obata, N.H.; Inoue, S.; Hidaka, H.
Biochem. J. 306, 551-555, 1995
A; Title: S100-beta is a target protein of neurocalcin delta, an abundant isoform
in glial cells.
A; Reference number: S54343; MUID: 95194333; PMID: 7887910
A; Accession: S54347
A; Molecule type: protein
A; Residues: 1-11 <OKA>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            8 KD 9
Qу
              Db
            1 KD 2
RESULT 29
A14454
6-phosphofructokinase (EC 2.7.1.11) - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text change 28-Apr-1993
C; Accession: A14454
R; Fordyce, A.M.; Midwinter, G.G.; Moore, C.H.
Biochem. Soc. Trans. 7, 721-723, 1979
A; Title: The N-terminal amino acid sequence of sheep heart phosphofructokinase.
A; Reference number: A14454; MUID: 80004524; PMID: 157899
A; Accession: A14454
A; Molecule type: protein
```

```
C; Keywords: glycolysis; phosphotransferase
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                                                              0;
            2; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
            1 AK 2
Qy
             8 AK 9
Db
RESULT 30
A61483
pyridoxal kinase (EC 2.7.1.35) - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C; Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text change 07-Oct-1994
C; Accession: A61483
R; Churchich, J.E.
J. Protein Chem. 9, 613-621, 1990
A; Title: Cleavage of pyridoxal kinase into two structural domains: kinetics of
proteolysis monitored by emission anisotropy.
A; Reference number: A61483; MUID: 91197387; PMID: 2085386
A; Accession: A61483
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <CHU>
C; Keywords: homodimer; phosphotransferase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            6 QR 7
Qу
              11
Db
           10 QR 11
RESULT 31
PN0664
dystrophin-associated glycoprotein A3a-III - rabbit (fragment)
C; Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text change 07-May-1999
C; Accession: PN0664
R; Yoshida, M.; Mizuno, Y.; Nonaka, I.; Ozawa, E.
J. Biochem. 114, 634-639, 1993
A; Title: A dystrophin-associated glycoprotein, A3a (one of 43DAG doublets), is
retained in Duchenne muscular dystrophy muscle.
A; Reference number: PN0662; MUID: 94156881; PMID: 8113213
A; Accession: PN0664
A; Molecule type: protein
A; Residues: 1-11 <YOS>
C; Comment: This protein is retained in Duchenne type muscular dystrophy muscle.
C; Keywords: glycoprotein; skeletal muscle
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
```

A; Residues: 1-11 <FOR>

```
Matches
            2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            9 DT 10
Qу
              \pm 1
            7 DT 8
Db
RESULT 32
PH1583
Iq H chain V-D-J region (wild-type clone 6) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence revision 02-Jun-1994 #text change 17-Mar-1999
C; Accession: PH1583
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1583
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            5 RQ 6
Qу
              Db
            3 RQ 4
RESULT 33
PN0044
protein kinase C inhibitor I - mouse (fragment)
C; Species: Mus musculus (house mouse)
C; Date: 29-Oct-1997 #sequence revision 29-Oct-1997 #text change 23-Jan-1998
C; Accession: PN0044
R; Kato, H.
Kawasaki Igakkaishi 22, 245-259, 1996
A; Title: Analysis of proteins isolated by two dimensional electrophoresis of
mouse neuroblastoma cells.
A; Reference number: PN0041
A; Accession: PN0044
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Experimental source: neuroblastoma cell
C; Comment: The molecular mass is 13,900 and the pI is 6.36. The amino-terminus
is blocked.
C; Keywords: brain
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
9 DT 10
Qу
              11
           10 DT 11
Db
RESULT 34
PH1376
T antigen variant K-3 - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 16-Jul-1999 #sequence revision 16-Jul-1999 #text change 11-May-2000
C; Accession: PH1376
R; Lill, N.L.; Judith Tevethia, M.; Hendrickson, W.G.; Tevethia, S.S.
J. Exp. Med. 176, 449-457, 1992
A; Title: Cytotoxic T lymphocytes (CTL) against a transforming gene product
select for transformed cells with point mutations within sequences encoding CTL
recognition epitopes.
A; Reference number: PH1373; MUID: 92364547; PMID: 1380062
A; Accession: PH1376
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <LIL>
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
           2; Conservative 0; Mismatches
                                                                               0:
  Matches
                                                        Indels
                                                                   0:
                                                                     Gaps
            3 KE 4
Qy
              11
Db
            6 KE 7
RESULT 35
S53436
beta-D-galactosidase - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 01-Aug-1995 #sequence revision 15-May-1998 #text change 07-May-1999
C; Accession: S53436; S53437
R; Tulsiani, D.R.P.; Skudlarek, M.D.; Araki, Y.; Orgebin-Crist, M.C.
Biochem. J. 305, 41-50, 1995
A; Title: Purification and characterization of two forms of beta-D-galactosidase
from rat epididymal luminal fluid: evidence for their role in the modification
of sperm plasma membrane glycoprotein(s).
A; Reference number: $53436; MUID: 95126928; PMID: 7826352
A; Accession: S53436
A; Molecule type: protein
A; Residues: 1-11 <TUL>
A; Experimental source: epididymal fluid
A; Note: 84K form
A; Accession: S53437
A; Molecule type: protein
A; Residues: 1-11 <TUW>
A; Experimental source: epididymal fluid
A; Note: 97K form
C; Keywords: glycoprotein
```

18.2%; Score 2; DB 2; Length 11;

100.0%; Pred. No. 3.2e+04;

Query Match

Best Local Similarity

```
Matches
            2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 QR 7
Qy
              11
            6 OR 7
Dh
RESULT 36
s65377
cytochrome-c oxidase (EC 1.9.3.1) chain VIa-H, cardiac - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 28-Oct-1996 #sequence revision 13-Mar-1997 #text change 16-Jul-1999
C; Accession: S65377
R; Schaegger, H.; Noack, H.; Halangk, W.; Brandt, U.; von Jagow, G.
Eur. J. Biochem. 230, 235-241, 1995
A; Title: Cytochrome-c oxidase in developing rat heart. Enzymic properties and
amino-terminal sequences suggest identity of the fetal heart and the adult liver
isoform.
A; Reference number: S65372; MUID: 95324529; PMID: 7601105
A; Accession: S65377
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Keywords: cardiac muscle; heart; oxidoreductase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+04;
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AK 2
Qу
Db
            3 AK 4
RESULT 37
PH0903
T-cell receptor beta chain V-D-J region (hybridoma S1C2A6) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C; Accession: PH0903
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0903
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized T-cell
C; Keywords: T-cell receptor
                                            DB 2; Length 11;
  Query Match
                          18.2%;
                                  Score 2;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
            4 ER 5
Qу
```

11

```
RESULT 38
PH0904
T-cell receptor beta chain V-D-J region (hybridoma S22C2) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0904
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0904
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized T-cell
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.2e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           10 TQ 11
Qу
              Db
           10 TQ 11
RESULT 39
PH0922
T-cell receptor beta chain V-D-J region (isolate 8) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0922
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0922
A; Molecule type: mRNA
A: Residues: 1-11 <GOL>
A; Experimental source: concanavalin A-activated lymphoblast
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
  Matches
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            9 DT 10
Qу
              11
            9 DT 10
Db
```

RESULT 40 A48973

```
qlucoamylase A1 (EC 3.2.1.-) - Chalara paradoxa (fragment)
C; Species: Chalara paradoxa
C;Date: 19-Dec-1993 #sequence revision 25-Apr-1997 #text change 25-Apr-1997
C; Accession: A48973
R; Monma, M.; Kainuma, K.
Carbohydr. Res. 227, 385-388, 1992
A; Title: Heterogeneity of the glucoamylase components of the raw-starch-
digesting amylase from Chalara paradoxa.
A; Reference number: A48973; MUID: 92361881; PMID: 1499035
A; Accession: A48973
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MON>
A; Note: sequence extracted from NCBI backbone (NCBIP:110946)
C; Keywords: glycosidase; hydrolase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
            4 ER 5
Qy
              \mathbf{I}
           10 ER 11
RESULT 41
H84082
hypothetical protein BH3464 [imported] - Bacillus halodurans (strain C-125)
C; Species: Bacillus halodurans
C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text change 15-Jun-2001
C; Accession: H84082
R; Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fuji,
F.; Hirama, C.; Nakamura, Y.; Ogasawara, N.; Kuhara, S.; Horikoshi, K.
Nucleic Acids Res. 28, 4317-4331, 2000
A; Title: Complete genome sequence of the alkaliphilic bacterium Bacillus
halodurans and genomic sequence comparison with Bacillus subtilis.
A; Reference number: A83650; MUID: 20512582; PMID: 11058132
A; Accession: H84082
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <STO>
A;Cross-references: GB:AP001518; GB:BA000004; NID:g10175792; PIDN:BAB07183.1;
GSPDB:GN00137
A; Experimental source: strain C-125
C; Genetics:
A; Gene: BH3464
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches
                                                    0; Indels
                                                                               0;
  Matches
                                                                  0; Gaps
Qу
            3 KE 4
              \perp
Db
            4 KE 5
```

```
hypothetical protein 11 ruvC-yebC intergenic region - Escherichia coli
C; Species: Escherichia coli
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text change 15-Oct-1999
C; Accession: S19015
R; Sharples, G.J.; Lloyd, R.G.
J. Bacteriol. 173, 7711-7715, 1991
A; Title: Resolution of Holliday junctions in Escherichia coli: identification of
the ruvC gene product as a 19-kilodalton protein.
A; Reference number: S19013; MUID: 92041688; PMID: 1657895
A; Accession: S19015
A; Molecule type: DNA
A; Residues: 1-11 <SHA>
A; Cross-references: EMBL: X59551; NID: q42172; PIDN: CAA42127.1; PID: q42174
C; Comment: This is the hypothetical translation of a sequence that was not
reported as a coding sequence in the complete genome.
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 3.2e+04;
  Best Local Similarity
                                0; Mismatches
                                                                  0:
                                                                      Gaps
                                                                              0;
  Matches
             2; Conservative
                                                    0; Indels
Qу
            1 AK 2
              \perp
Db
            4 AK 5
RESULT 43
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence revision 30-Sep-1988 #text_change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID: 86177022; PMID: 3008123
A; Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            6 Q 6
Db
            1 Q 1
```

S19015

```
RESULT 44
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
  Matches
             1: Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            6 Q 6
Qу
            1 Q 1
Db
RESULT 45
ECLQ2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text change 08-Dec-1995
C; Accession: S08266
R; Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A; Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
            1; Conservative 0; Mismatches
  Matches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
Qy
            1 A 1
Db
            1 A 1
```

```
substance P - horse
C; Species: Equus caballus (domestic horse)
C; Date: 23-Oct-1981 #sequence revision 23-Oct-1981 #text change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
A; Reference number: A01558
A; Accession: A01558
A; Molecule type: protein
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C: Keywords: amidated carboxyl end; hormone
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
                                                                  0; Gaps
                                                                               0;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
            5 R 5
Qу
Db
            1 R 1
RESULT 47
A60654
substance P - guinea pig
C; Species: Cavia porcellus (guinea pig)
C;Date: 14-May-1993 #sequence revision 27-Jun-1994 #text change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of guinea-pig substance P.
A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
A; Molecule type: protein
A; Residues: 1-11 <MUR>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
                                                                               0;
  Matches
             1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            5 R 5
Qy
Db
            1 R 1
RESULT 48
GMROL
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C; Date: 17-Mar-1987 #sequence revision 17-Mar-1987 #text_change 13-Sep-1996
```

SPHO

```
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
A; Molecule type: protein
A; Residues: 1-11 <NAC>
C; Superfamily: gastrin
C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F;6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            1; Conservative
            4 E 4
Qy
            1 E 1
Db
RESULT 49
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
C;Date: 30-Jun-1991 #sequence revision 30-Jun-1991 #text change 16-Jul-1999
C; Accession: S03315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
A; Accession: S03315
A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: g48261; PIDN: CAA30565.1; PID: g48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
  Matches
            1; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            1 A 1
Qy
              ı
Db
            2 A 2
RESULT 50
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
```

```
C;Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text change 12-Jun-1998
C; Accession: S66196
R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
A; Accession: S66196
A; Molecule type: protein
A; Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
           10 T 10
Qу
Db
            1 T 1
RESULT 51
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A; Accession: G42762
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
A; Note: sequence extracted from NCBI backbone (NCBIP: 112176)
C; Superfamily: multicatalytic endopeptidase complex chain C9
C; Keywords: hydrolase
  Ouerv Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
                                                                              0;
  Matches
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
Qy
            2 K 2
Dh
            8 K 8
RESULT 52
S68392
H+-transporting two-sector ATPase (EC 3.6.3.14) chain I - Chlamydomonas
reinhardtii chloroplast (fragment)
N; Alternate names: ATP synthase chain I
```

```
C; Species: chloroplast Chlamydomonas reinhardtii
C;Date: 04-Dec-1997 #sequence revision 12-Dec-1997 #text change 03-Jun-2002
C; Accession: S68392
R; Fiedler, H.R.; Schmid, R.; Leu, S.; Shavit, N.; Strotmann, H.
FEBS Lett. 377, 163-166, 1995
A; Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtii cw15 and the N-
terminal amino acid sequences of the CF(0)CF(1) subunits.
A; Reference number: S68388; MUID: 96128220; PMID: 8543042
A: Accession: S68392
A; Molecule type: protein
A; Residues: 1-11 <FIE>
A; Experimental source: strain CW15
C; Genetics:
A; Genome: chloroplast
C; Superfamily: H+-transporting ATP synthase protein 6
C; Keywords: ATP biosynthesis; chloroplast; hydrolase; membrane-associated
complex; thylakoid
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+05;
             1; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            4 E 4
Qу
              1
Db
            1 E 1
RESULT 53
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
C; Species: Cricetulus griseus (Chinese hamster)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text_change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <SIM>
A; Cross-references: GB:M23652
C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase
homology; Bacillus dihydroorotase homology; biotin carboxylase homology;
carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase
(qlutamine-hydrolyzing) small chain homology; trpG homology
C; Keywords: hydrolase
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
  Matches
             1; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
```

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Db 2 E 2
```

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RESULT 54
B49164
chromogranin-B - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text change 31-Oct-1997
C; Accession: B49164
R; Nielsen, E.; Welinder, B.S.; Madsen, O.D.
Endocrinology 129, 3147-3156, 1991
A:Title: Chromogranin-B, a putative precursor of eight novel rat glucagonoma
peptides through processing at mono-, di-, or tribasic residues.
A; Reference number: A49164; MUID: 92063871; PMID: 1954895
A; Accession: B49164
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <NIE>
A; Note: sequence extracted from NCBI backbone (NCBIP: 66370)
C; Superfamily: chromogranin B precursor
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
                                                                              0;
  Matches
             1; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            4 E 4
Qу
              1
Db
            4 E 4
RESULT 55
JN0023
substance P - chicken
C; Species: Gallus gallus (chicken)
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 11-Jul-1997
C; Accession: JN0023
R; Conlon, J.M.; Katsoulis, S.; Schmidt, W.E.; Thim, L.
Regul. Pept. 20, 171-180, 1988
A; Title: [Arg3] substance P and neurokinin A from chicken small intestine.
A; Reference number: JN0023; MUID: 88204263; PMID: 2452461
A; Accession: JN0023
A; Molecule type: protein
A; Residues: 1-11 <CON>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qy
            5 R 5
Db
            1 R 1
```

```
RESULT 56
$32575
ribosomal protein S2, plastid - squawroot plastid (fragment)
C; Species: plastid Conopholis americana (squawroot)
C; Date: 19-Mar-1997 #sequence revision 25-Apr-1997 #text change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: S32575; MUID: 92145776; PMID: 1723664
A; Accession: S32575
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
A; Cross-references: EMBL: X64567; NID: q11275; PIDN: CAA45868.1; PID: q11276
C; Genetics:
A; Gene: rps2
A: Genome: plastid
C; Superfamily: Escherichia coli ribosomal protein S2
C; Keywords: plastid; protein biosynthesis; ribosome
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
  Matches
            1; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            4 E 4
Qy
              1
Db
           11 E 11
RESULT 57
A40693
transgelin - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C; Date: 03-May-1994 #sequence revision 03-May-1994 #text change 31-Oct-1997
C; Accession: A40693
R; Shapland, C.; Hsuan, J.J.; Totty, N.F.; Lawson, D.
J. Cell Biol. 121, 1065-1073, 1993
A; Title: Purification and properties of transgelin: a transformation and shape
change sensitive actin-gelling protein.
A; Reference number: A40693; MUID: 93273790; PMID: 8501116
A; Accession: A40693
A; Molecule type: protein
A; Residues: 1-11 <SHA>
A; Experimental source: aorta
C; Comment: This protein gels actin and is down regulated by transformation or
loss of cell adherence in culture.
C; Superfamily: smooth muscle protein SM22; calponin repeat homology; smooth
muscle protein SM22 homology
C; Keywords: actin binding; cytoskeleton
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+05;
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
  Matches
                                                                              0;
```

```
1 K 1
```

Db

```
RESULT 58
S00616
parasporal crystal protein, wax moth-specific - Bacillus thuringiensis (strain
galleriae 11-67) (fragment)
N; Alternate names: delta-endotoxin; parasporal crystal protein positive chain
C; Species: Bacillus thuringiensis
C;Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text change 13-Sep-1996
C; Accession: S00616
R; Chestukhina, G.G.; Kostina, L.I.; Zalunin, I.A.; Khodova, O.M.; Stepanov, V.M.
FEBS Lett. 232, 249-251, 1988
A; Title: Bacillus thuringiensis ssp. galleriae simultaneously produces two
delta-endotoxins differing strongly in primary structure and entomocidal
activity.
A; Reference number: S00615
A:Accession: S00616
A; Molecule type: protein
A; Residues: 1-11 <CHE>
C; Comment: This toxin is effective against the larvae of Galleria melonella
(greater wax moth) but not those of Lymantria dispar (gypsy moth).
C; Superfamily: parasporal crystal protein
C; Keywords: delta-endotoxin
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
  Matches
             1; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 A 1
Qу
Db
            4 A 4
RESULT 59
C53652
rhlR protein - Pseudomonas aeruginosa (fragment)
C; Species: Pseudomonas aeruginosa
C; Date: 21-Jul-1995 #sequence revision 28-Jul-1995 #text change 21-Aug-1998
C; Accession: C53652
R; Ochsner, U.A.; Fiechter, A.; Reiser, J.
J. Biol. Chem. 269, 19787-19795, 1994
A; Title: Isolation, characterization, and expression in Escherichia coli of the
Pseudomonas aeruginosa rhlAB genes encoding a rhamnosyltransferase involved in
rhamnolipid biosurfactant synthesis.
A; Reference number: A53652; MUID: 94327521; PMID: 8051059
A; Accession: C53652
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <OCH>
A; Cross-references: GB:L28170
C; Superfamily: sdiA regulatory protein
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
  Matches
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
```

```
5 R 5
Qу
Db
            2 R 2
RESULT 60
S09074
cytochrome P450-4b - rat (fragment)
N; Alternate names: cytochrome P450K-5
N; Contains: oxidoreductase (EC 1.-.-.)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 23-Apr-1993 #sequence revision 23-Apr-1993 #text change 05-Mar-1999
C; Accession: S09074
R; Imaoka, S.; Terano, Y.; Funae, Y.
Arch. Biochem. Biophys. 278, 168-178, 1990
A; Title: Changes in the amount of cytochrome P450s in rat hepatic microsomes
with starvation.
A; Reference number: S09072; MUID: 90210577; PMID: 2321956
A: Accession: S09074
A; Molecule type: protein
A; Residues: 1-11 < IMA>
C; Superfamily: unassigned cytochrome P450; cytochrome P450 homology
C; Keywords: heme; microsome; monooxygenase; oxidoreductase; transmembrane
protein
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
           10 T 10
Qy
Db
            5 T 5
RESULT 61
A57458
gene Gax protein - mouse (fragment)
C; Species: Mus sp. (mouse)
C; Date: 02-Jul-1996 #sequence revision 02-Jul-1996 #text change 15-Oct-1999
C; Accession: A57458
R; Andres, V.; Fisher, S.; Wearsch, P.; Walsh, K.
Mol. Cell. Biol. 15, 4272-4281, 1995
A; Title: Regulation of Gax homeobox gene transcription by a combination of
positive factors including myocyte-specific enhancer factor 2.
A; Reference number: A57458; MUID: 95349593; PMID: 7623821
A; Accession: A57458
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A; Cross-references: GB: S79168; NID: g1050991
C; Genetics:
A; Gene: Gax
C; Superfamily: unassigned homeobox proteins; homeobox homology
C; Keywords: DNA binding; homeobox; nucleus; transcription regulation
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
```

```
Best Local Similarity 100.0%; Pred. No. 2.1e+05;
  Matches
                Conservative 0; Mismatches 0; Indels
            1:
                                                               0; Gaps
                                                                             0;
            4 E 4
Qу
            2 E 2
Db
RESULT 62
A26930
ermG leader peptide 1 - Bacillus sphaericus
C; Species: Bacillus sphaericus
C; Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 24-Sep-1999
C; Accession: A26930
R; Monod, M.; Mohan, S.; Dubnau, D.
J. Bacteriol. 169, 340-350, 1987
A; Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin
B resistance element from Bacillus sphaericus.
A; Reference number: A91840; MUID: 87083389; PMID: 3025178
A; Accession: A26930
A; Molecule type: DNA
A; Residues: 1-11 <MON>
A; Cross-references: GB:M15332; NID:q142881; PIDN:AAA22417.1; PID:q142882
C; Superfamily: unassigned leader peptides
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
            1; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
           2 K 2
Qу
Db
            3 K 3
RESULT 63
D60409
kassinin-like peptide K-III - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: D60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: D60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
                         100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
  Matches 1; Conservative
                              0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
```

```
6 Q 6
Qу
            1 Q 1
Dh
RESULT 64
F60409
substance P-like peptide II - frog (Pseudophryne guentheri)
C; Species: Pseudophryne quentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: F60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: F60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+05;
  Matches
             1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
            6 Q 6
Qy
Db
            1 Q 1
RESULT 65
E60409
substance P-like peptide I - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: E60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: E60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
```

100.0%; Pred. No. 2.1e+05;

Best Local Similarity

```
Matches
            1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0:
            606
Qу
            1 Q 1
Db
RESULT 66
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A:Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+05;
  Best Local Similarity
                                                                              0;
  Matches
             1; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
            6 Q 6
Qy
Db
            1 Q 1
RESULT 67
YHHU
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
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A; Accession: B01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
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Db
            1 Q 1
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C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
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neuropeptide

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F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
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N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C; Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
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N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence_revision 20-Jun-2000 #text_change 20-Jun-2000
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R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
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R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
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phyllokinin - Rohde's leaf frog
N; Alternate names: bradykinyl-isoleucyl-tyrosine O-sulfate
C; Species: Phyllomedusa rohdei (Rohde's leaf frog)
C;Date: 09-Sep-1994 #sequence revision 09-Sep-1994 #text change 18-Aug-2000
C; Accession: A61365
R; Anastasi, A.; Bertaccini, G.; Erspamer, V.
Br. J. Pharmacol. 27, 479-485, 1966
A; Title: Pharmacological data on phyllokinin (bradykinyl-isoleucyl-tyrosine O-
sulphate) and bradykinyl-isoleucyl-tyrosine.
A; Reference number: A61365; MUID: 67179312; PMID: 5970899
A; Accession: A61365
A; Status: preliminary
A; Molecule type: protein
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C; Accession: B93900; A01427

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substance P - rainbow trout
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C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23308
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23308
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
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C; Accession: S23306
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A; Accession: S23306
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C: Function:
A; Description: may play a physiological role in the regulation of cardiovascular
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and gastrointestinal functions

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A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
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C; Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 18-Aug-2000
C; Accession: B60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: B60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
A; Note: this peptide was also found in a deamidated form
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) (partial) #status experimental
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RESULT 75
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C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 18-Aug-2000
C; Accession: C60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
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A; Accession: C60409 A; Molecule type: protein A; Residues: 1-11 <SIM>

A; Note: this peptide was also found in a deamidated form

C; Superfamily: unassigned animal peptides

C; Keywords: amidated carboxyl end; pyroglutamic acid

F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental F;11/Modified site: amidated carboxyl end (Met) (partial) #status experimental

9.1%; Score 1; DB 2; Length 11; Query Match Best Local Similarity 100.0%; Pred. No. 2.1e+05; Matches

1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Search completed: April 8, 2004, 15:49:24 Job time : 8.61538 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:47:33; Search time 30.3077 Seconds

(without alignments)

95.432 Million cell updates/sec

Title: US-09-787-443A-2

Perfect score: 11

Sequence: 1 AKKERQRKDTQ 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1073127 seqs, 262937947 residues

Word size:

Total number of hits satisfying chosen parameters: 9223

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Published Applications AA:\*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result Query

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## ALIGNMENTS

## RESULT 1 US-09-879-936-10

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- ; Patent No. US20020045564A1
- ; GENERAL INFORMATION:
- ; APPLICANT: Van Eyk, Jennifer E.
- ; APPLICANT: Mak, Alan S.
- ; APPLICANT: Cote, Graham P.

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TITLE OF INVENTION: Methods of Modulating Muscle Contraction
  FILE REFERENCE: 1997-021-03US
  CURRENT APPLICATION NUMBER: US/09/879,936
  CURRENT FILING DATE: 2001-06-14
   PRIOR APPLICATION NUMBER: 60/050,478
  PRIOR FILING DATE: 1997-06-23
  PRIOR APPLICATION NUMBER: 60/089,505
  PRIOR FILING DATE: 1998-06-16
  NUMBER OF SEO ID NOS: 26
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown
   FEATURE:
   NAME/KEY: PEPTIDE
   LOCATION: (1)..(11)
   OTHER INFORMATION: Residues 423 to 433 of chicken gizzard caldesmon
   NAME/KEY: PEPTIDE
    LOCATION: (11)
    OTHER INFORMATION: Targeted Ser phospho-amino acid
US-09-879-936-10
                         36.4%; Score 4; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 7.9e+02;
           4; Conservative 0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
           1 AKKE 4
Qу
              +111
           7 AKKE 10
Db
RESULT 2
US-10-304-443-118
; Sequence 118, Application US/10304443
; Publication No. US20030170229A1
; GENERAL INFORMATION:
 APPLICANT: Smithkline Beecham Biologicals s.a.
  APPLICANT: Peptide Therapeutics Ltd.
 TITLE OF INVENTION: Vaccine
  FILE REFERENCE: B45173CIP
  CURRENT APPLICATION NUMBER: US/10/304,443
  CURRENT FILING DATE: 2002-11-26
 PRIOR APPLICATION NUMBER: US/09/698,906A
  PRIOR FILING DATE: 2001-02-20
  NUMBER OF SEQ ID NOS: 121
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 118
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Human peptide sequence
US-10-304-443-118
  Query Match
                         36.4%; Score 4; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 7.9e+02;
          4; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
```

```
4 ERQR 7
QУ
              +111
Db
            2 ERQR 5
RESULT 3
US-08-344-824-44
; Sequence 44, Application US/08344824
; Publication No. US20030152580A1
   GENERAL INFORMATION:
    APPLICANT: SETTE, Alessandro
     APPLICANT: SIDNEY, John
     TITLE OF INVENTION: HLA BINDING PEPTIDES AND THEIR USES
    NUMBER OF SEQUENCES: 399
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend Khourie and Crew
       STREET: One Market Plaza, Steuart Street Tower, 20th
       STREET: Floor
       CITY: San Francisco
       STATE: California
       COUNTRY: USA
;
       ZIP: 94105
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/344,824
;
       FILING DATE: 23-NOV-1994
;
       CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/278,634
       FILING DATE: 21-JUL-1994
    ATTORNEY/AGENT INFORMATION:
       NAME: Bastian, Kevin L.
       REGISTRATION NUMBER: 34,774
       REFERENCE/DOCKET NUMBER: 14137-80-1
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 543-9600
       TELEFAX: (415) 543-5043
   INFORMATION FOR SEQ ID NO: 44:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: DNA (genomic)
US-08-344-824-44
  Query Match
                          27.3%; Score 3; DB 8; Length 11;
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            3 KER 5
Qу
              +++
Db
            4 KER 6
```

```
RESULT 4
US-09-780-070-37
; Sequence 37, Application US/09780070
; Patent No. US20020009752A1
; GENERAL INFORMATION:
; APPLICANT: Burke, James
 APPLICANT: Strittmater, Warren
  APPLICANT: Nagai, Yoshitaka
  TITLE OF INVENTION: COMPOUNDS THAT SELECTIVELY BIND TO EXPANDED POLYGLUTAMINE
REPEAT DOMAINS
 TITLE OF INVENTION: AND METHODS OF USE THEREOF
  FILE REFERENCE: 5405.242
  CURRENT APPLICATION NUMBER: US/09/780,070
  CURRENT FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/189,781
 PRIOR FILING DATE: 2000-03-16
  NUMBER OF SEQ ID NOS: 40
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 37
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Human immunodeficiency virus
US-09-780-070-37
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                                0; Gaps
                                                                            0;
            3; Conservative 0; Mismatches 0; Indels
           5 RQR 7
Qу
             7 RQR 9
Db
RESULT 5
US-09-815-108-9
; Sequence 9, Application US/09815108
; Patent No. US20020009776A1
; GENERAL INFORMATION:
; APPLICANT: Saris, Christiaan M.
  APPLICANT: Sharon, Mu X.
  APPLICANT: Xia, Min
  APPLICANT: Boone, Thomas Charles
   APPLICANT: Covey, Todd
   TITLE OF INVENTION: Fibroblast Growth Factor Receptor-Like Molecules and
   TITLE OF INVENTION: Uses Thereof
  FILE REFERENCE: 99-513-A
  CURRENT APPLICATION NUMBER: US/09/815,108
   CURRENT FILING DATE: 2001-03-22
   PRIOR APPLICATION NUMBER: 60/191,379
   PRIOR FILING DATE: 2000-03-22
   NUMBER OF SEQ ID NOS: 22
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
   LENGTH: 11
    TYPE: PRT
```

```
ORGANISM: Human immunodeficiency virus type 1
US-09-815-108-9
                          27.3%; Score 3; DB 9; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                                             0;
           3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
 Matches
            5 RQR 7
QУ
             7 ROR 9
Db
RESULT 6
US-09-839-666-12
; Sequence 12, Application US/09839666
; Patent No. US20020025513A1
    GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
;
                             EXCHANGER
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
;
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/839,666
              FILING DATE: 19-Apr-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/737,085
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
              TELEX: 236687
    INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-839-666-12
```

```
27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                                0; Gaps
                                                                            0;
            3; Conservative 0; Mismatches
                                                  0; Indels
 Matches
            6 QRK 8
Qу
             1 QRK 3
Db
RESULT 7
US-09-886-404-13
; Sequence 13, Application US/09886404
; Patent No. US20020037524A1
; GENERAL INFORMATION:
  APPLICANT: Medlock, Eugene
  APPLICANT: Yeh, Richard
  APPLICANT: Silbiger, Scott M.
              Elliot, Gary S.
  APPLICANT:
              Nguyen, Hung Q.
  APPLICANT:
;
              Jing, Shuqian
  APPLICANT:
  TITLE OF INVENTION: IL-17 Like Molecules and Uses Thereof
  FILE REFERENCE: 01017/37128B
  CURRENT APPLICATION NUMBER: US/09/886,404
  CURRENT FILING DATE: 2001-06-21
  PRIOR APPLICATION NUMBER: 09/810,384
  PRIOR FILING DATE: 2001-03-16
  PRIOR APPLICATION NUMBER: 60/266,159
  PRIOR FILING DATE: 2001-02-02
;
  PRIOR APPLICATION NUMBER: 60/213,125
;
  PRIOR FILING DATE: 2000-06-22
  NUMBER OF SEQ ID NOS: 22
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Peptide of HIV
   OTHER INFORMATION: TAT protein
US-09-886-404-13
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
            5 ROR 7
Qу
             Db
            7 RQR 9
RESULT 8
US-09-805-805-8
; Sequence 8, Application US/09805805
; Patent No. US20020037557A1
; GENERAL INFORMATION:
; APPLICANT: Bass, Michael B.
```

Query Match

```
APPLICANT: Jing, Shugian
  TITLE OF INVENTION: Fibroblast Growth Factor-Like Molecules and Uses
  TITLE OF INVENTION: Thereof
  FILE REFERENCE: 01-006-A1
 CURRENT APPLICATION NUMBER: US/09/805,805
 CURRENT FILING DATE: 2001-03-13
; PRIOR APPLICATION NUMBER: 60/188,786
 PRIOR FILING DATE: 2000-03-13
 NUMBER OF SEQ ID NOS: 11
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
US-09-805-805-8
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           5 RQR 7
Qу
             7 RQR 9
Db
RESULT 9
US-09-809-567-16
; Sequence 16, Application US/09809567
; Patent No. US20020045213A1
; GENERAL INFORMATION:
; APPLICANT: Jing, Shuqian
; TITLE OF INVENTION: IL-17 Receptor Like Molecules and Uses Thereof
  FILE REFERENCE: 01017/36916A
  CURRENT APPLICATION NUMBER: US/09/809,567
  CURRENT FILING DATE: 2001-03-15
  PRIOR APPLICATION NUMBER: 09/724,460
  PRIOR FILING DATE: 2000-11-28
  PRIOR APPLICATION NUMBER: 60/189,816
; PRIOR FILING DATE: 2000-03-16
; NUMBER OF SEQ ID NOS: 17
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Peptide
US-09-809-567-16
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                              0; Gaps
  Matches
           5 RQR 7
Qу
             -111
Db
           7 RQR 9
```

```
RESULT 10
US-09-802-109-1
; Sequence 1, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
  APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/802,109
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: 09/044,411
  PRIOR FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
   SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 1
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
ï
    FEATURE:
    OTHER INFORMATION: Internal sequence from the Tat protein, but with
    OTHER INFORMATION: an extra Cys not found in natural protein.
    NAME/KEY: SITE
    LOCATION: (10)
    OTHER INFORMATION: Xaa is either Cys(biotin) or Lys(biotin) at this
    OTHER INFORMATION: position.
    NAME/KEY: BINDING
    LOCATION: (10)
    OTHER INFORMATION: Either Cys(biotin) or Lys(biotin) at this
    OTHER INFORMATION: position.
    OTHER INFORMATION: Peptide has an N-terminal carboxylic acid residue.
    OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-802-109-1
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
             3; Conservative
            5 RQR 7
Qy
              111
            5 RQR 7
RESULT 11
US-09-802-109-2
; Sequence 2, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
   APPLICANT: Stein, Stanley
   TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
   FILE REFERENCE: 601-1-083
   CURRENT APPLICATION NUMBER: US/09/802,109
   CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: 09/044,411
 PRIOR FILING DATE: 1998-03-19
; NUMBER OF SEQ ID NOS: 10
   SOFTWARE: PatentIn Ver. 2.0
```

```
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: two extra Cys residues not found in thenatural
   OTHER INFORMATION: protein.
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: Cys(biotin)
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-802-109-2
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                                            0;
           3; Conservative
                               0; Mismatches
                                                 0; Indels
 Matches
           5 RQR 7
Qу
             -111
           5 RQR 7
Db
RESULT 12
US-09-802-109-3
; Sequence 3, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/802,109
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: 09/044,411
  PRIOR FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: an extra Lys and an extra Cys not found in the
   OTHER INFORMATION: natural protein.
   NAME/KEY: BINDING
   LOCATION: (10)
    OTHER INFORMATION: Lys(biotin)
    OTHER INFORMATION: Peptide has an N-terminal acetyl group.
    OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-802-109-3
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
```

```
5 RQR 7
QУ
             5 ROR 7
Db
RESULT 13
US-09-802-109-4
; Sequence 4, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/802,109
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: 09/044,411
  PRIOR FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: two extra Cys not found in the natural protein.
   NAME/KEY: SITE
   LOCATION: (10)
   OTHER INFORMATION: Cys is the D isomer at this position.
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: D-Cys(biotin)
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-802-109-4
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
                               0; Mismatches
            3; Conservative
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
           5 RQR 7
Qу
              | | | |
Db
            5 RQR 7
RESULT 14
US-09-802-109-5
; Sequence 5, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
  APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
; FILE REFERENCE: 601-1-083
; CURRENT APPLICATION NUMBER: US/09/802,109
; CURRENT FILING DATE: 2001-03-08
 PRIOR APPLICATION NUMBER: 09/044,411
```

; PRIOR FILING DATE: 1998-03-19

```
NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Internal sequence from the Tat protein, but with
   OTHER INFORMATION: an extra Lys and an extra Cys not found in the
   OTHER INFORMATION: natural protein.
   NAME/KEY: SITE
   LOCATION: (10)
   OTHER INFORMATION: Lys is D isomer at this position.
   NAME/KEY: BINDING
   LOCATION: (10)
   OTHER INFORMATION: D-Lys(biotin)
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
    OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-802-109-5
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches
           3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            5 ROR 7
Qу
             Db
            5 RQR 7
RESULT 15
US-09-802-109-6
; Sequence 6, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
  TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
  FILE REFERENCE: 601-1-083
  CURRENT APPLICATION NUMBER: US/09/802,109
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: 09/044,411
  PRIOR FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   FEATURE:
   OTHER INFORMATION: Same as Sequence ID 3, but with a substitution of
   OTHER INFORMATION: Arg to Gln.
   NAME/KEY: SITE
   LOCATION: (10)
    OTHER INFORMATION: Lys is the D isomer at this position.
   NAME/KEY: BINDING
    LOCATION: (10)
    OTHER INFORMATION: D-Lys(biotin)
    OTHER INFORMATION: Peptide has an N-terminal acetyl group.
```

```
US-09-802-109-6
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches
                                                  0: Indels
                                                               0; Gaps
                                                                           0;
           5 RQR 7
Qу
             -111
           5 RQR 7
Db
RESULT 16
US-09-802-109-8
; Sequence 8, Application US/09802109
; Patent No. US20020058611A1
; GENERAL INFORMATION:
; APPLICANT: Stein, Stanley
 TITLE OF INVENTION: CARRIER FOR IN VIVO DELIVERY OF A THERAPEUTIC
; FILE REFERENCE: 601-1-083
; CURRENT APPLICATION NUMBER: US/09/802,109
  CURRENT FILING DATE: 2001-03-08
  PRIOR APPLICATION NUMBER: 09/044,411
  PRIOR FILING DATE: 1998-03-19
  NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
   OTHER INFORMATION: All amino acids in this sequence are D amino acid.
   NAME/KEY: BINDING
   LOCATION: (2)
   OTHER INFORMATION: D-Lys(biotin)
   OTHER INFORMATION: Peptide has an N-terminal acetyl group.
   OTHER INFORMATION: Peptide has a C-terminal amide group.
US-09-802-109-8
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           5 RQR 7
Qy
             5 RQR 7
RESULT 17
US-09-821-821-24
; Sequence 24, Application US/09821821
; Patent No. US20020064823A1
; GENERAL INFORMATION:
; APPLICANT: Welcher, Andrew A.
 APPLICANT: Calzone, Frank J.
  TITLE OF INVENTION: CD20/IgE-Receptor Like Molecules and Uses Thereof
; FILE REFERENCE: 01017/36938A
```

OTHER INFORMATION: Peptide has a C-terminal amide group.

```
CURRENT APPLICATION NUMBER: US/09/821,821
  CURRENT FILING DATE: 2001-03-29
  PRIOR APPLICATION NUMBER: US 09/723,258
  PRIOR FILING DATE: 2000-11-27
  PRIOR APPLICATION NUMBER: US 60/193,728
  PRIOR FILING DATE: 2000-03-30
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 24
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Peptide
US-09-821-821-24
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                            0;
 Matches
Qу
            5 ROR 7
             \perp \perp \perp
            7 RQR 9
Db
RESULT 18
US-09-895-943-13
; Sequence 13, Application US/09895943
; Patent No. US20020068323A1
; GENERAL INFORMATION:
  APPLICANT: Saris, Chris
  APPLICANT: Chang, Ming-Shi
  TITLE OF INVENTION: Thymic Stromal Lymphopoietin Receptor Molecules and
  TITLE OF INVENTION: Uses Thereof
  FILE REFERENCE: 00-514-C
  CURRENT APPLICATION NUMBER: US/09/895,943
  CURRENT FILING DATE: 2001-06-28
  PRIOR APPLICATION NUMBER: 60/214,866
  PRIOR FILING DATE: 2000-06-28
  NUMBER OF SEQ ID NOS: 16
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-895-943-13
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
            3: Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            5 RQR 7
Qу
              111
            7 RQR 9
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US-09-873-676-23
; Sequence 23, Application US/09873676
; Patent No. US20020077289A1
; GENERAL INFORMATION:
; APPLICANT: MacDonald, Nicholas J.
  APPLICANT: Sim, Kim L.
  TITLE OF INVENTION: Angiostatin and Endostatin Binding Proteins and Methods
  FILE REFERENCE: 05213-0378 (43170-259333)
  CURRENT APPLICATION NUMBER: US/09/873,676
  CURRENT FILING DATE: 2001-06-04
  PRIOR APPLICATION NUMBER: US 60/209,065
  PRIOR FILING DATE: 2000-06-02
  PRIOR APPLICATION NUMBER: US 60/289,387
  PRIOR FILING DATE: 2001-05-08
; NUMBER OF SEQ ID NOS: 123
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 23
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: synthetic binding peptide
US-09-873-676-23
 Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
            3; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                     Gaps
                                                                             0;
Qу
            7 RKD 9
              III
            5 RKD 7
Db
RESULT 20
US-09-891-064A-6
; Sequence 6, Application US/09891064A
; Patent No. US20020082391A1
; GENERAL INFORMATION:
 APPLICANT: James M. Anderson
  APPLICANT: Christina M. Van Itallie
; TITLE OF INVENTION: Human Occludin, Its Uses and Enhancement of Drug
; TITLE OF INVENTION: Absorption Using Occludin Inhibitors
; FILE REFERENCE: OCR-754.CIP
  CURRENT APPLICATION NUMBER: US/09/891,064A
  CURRENT FILING DATE: 2001-06-25
  PRIOR APPLICATION NUMBER: US 09/142,732
  PRIOR FILING DATE: 1998-09-15
  NUMBER OF SEQ ID NOS: 6
  SOFTWARE: MS DOS
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: peptide
   OTHER INFORMATION: construct used in experiments
```

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27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           7 RKD 9
QУ
              111
Db
            7 RKD 9
RESULT 21
US-09-825-414-91
; Sequence 91, Application US/09825414
; Patent No. US20020083489A1
; GENERAL INFORMATION:
; APPLICANT: Collmer, Alan
; APPLICANT: Alfano, James R.
  APPLICANT: Charkowski, Amy O.
  TITLE OF INVENTION: DNA MOLECULES AND POLYPEPTIDES OF PSEUDOMONAS SYRINGAE
  TITLE OF INVENTION: HRP PATHOGENICITY ISLAND AND THEIR USES
  FILE REFERENCE: 19603/3243
  CURRENT APPLICATION NUMBER: US/09/825,414
  CURRENT FILING DATE: 2001-04-03
;
  PRIOR APPLICATION NUMBER: 60/194,160
  PRIOR FILING DATE: 2000-04-03
  PRIOR APPLICATION NUMBER: 60/224,604
  PRIOR FILING DATE: 2000-08-11
  PRIOR APPLICATION NUMBER: 60/249,548
  PRIOR FILING DATE: 2000-11-17
  NUMBER OF SEQ ID NOS: 91
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 91
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: human
   OTHER INFORMATION: immunodeficiency virus TAT protein, transduction
   OTHER INFORMATION: domain
US-09-825-414-91
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
 Matches
           3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RQR 7
Qу
              \mathbf{I}
            7 RQR 9
Db
RESULT 22
US-09-941-611-3
; Sequence 3, Application US/09941611
; Patent No. US20020106640A1
   GENERAL INFORMATION:
         APPLICANT: DELEYS, ROBERT J
```

```
POLLET, DIRK
                    MAERTENS, GEERT
                    VAN HEUVERSWUN, HUGO
         TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
                             ANTIBODIES TO HEPATITIS C VIRUS
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: NIXON & VANDERHYE P.C.
              STREET: 1100 NORTH GLEBE ROAD
              CITY: ARLINGTON
              STATE: VA
              COUNTRY: USA
              ZIP: 22201
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/941,611
              FILING DATE: 30-Aug-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/391,671
              FILING DATE: 1995-02-21
              APPLICATION NUMBER: WO PCT/EP91/02409
              FILING DATE: 13-DEC-1991
              APPLICATION NUMBER: EP 90124241.2
              FILING DATE: 14-DEC-1990
        ATTORNEY/AGENT INFORMATION:
              NAME: SADOFF, B.J.
              REGISTRATION NUMBER: 36,663
              REFERENCE/DOCKET NUMBER: 1487-5
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 7038164000
              TELEFAX: 7038164100
    INFORMATION FOR SEQ ID NO: 3:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-941-611-3
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                                 0; Gaps
            3; Conservative 0; Mismatches 0;
  Matches
                                                      Indels
                                                                             0;
            6 ORK 8
Qу
             -111
Db
            1 ORK 3
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RESULT 23 US-09-867-274-23

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; Patent No. US20020106650A1
; GENERAL INFORMATION:
; APPLICANT: Paszty, Christopher
  APPLICANT: Gao, Yongming
 TITLE OF INVENTION: Cysteine Knot Polypeptides: Cloaked-2 Molecules and Uses
Thereof
; FILE REFERENCE: 01017/37428
  CURRENT APPLICATION NUMBER: US/09/867,274
  CURRENT FILING DATE: 2001-05-29
  PRIOR APPLICATION NUMBER: US 60/208,550
  PRIOR FILING DATE: 2000-06-01
; PRIOR APPLICATION NUMBER: US 60/223,542
  PRIOR FILING DATE: 2000-08-04
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 23
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: HIV TAT peptide
US-09-867-274-23
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                                            0:
 Matches
           3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
Qу
           5 ROR 7
             +111
           7 RQR 9
Db
RESULT 24
US-09-955-866-24
; Sequence 24, Application US/09955866
; Patent No. US20020107363A1
; GENERAL INFORMATION:
  APPLICANT: Fox, Michael
              Sullivan, John K.
  APPLICANT:
              Holst, Paige
  APPLICANT:
              Yoshinaga, Steven Kiyoshi
  APPLICANT:
  TITLE OF INVENTION: B7-Like Polypeptides and Uses Thereof
  FILE REFERENCE: 00,759-A
  CURRENT APPLICATION NUMBER: US/09/955,866
  CURRENT FILING DATE: 2001-09-19
  PRIOR APPLICATION NUMBER: 60/233,867
  PRIOR FILING DATE: 2000-09-20
  NUMBER OF SEQ ID NOS: 30
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 24
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
US-09-955-866-24
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
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; Sequence 23, Application US/09867274

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Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
Qу
           5 RQR 7
             Db
           7 RQR 9
RESULT 25
US-09-736-743A-2
; Sequence 2, Application US/09736743A
; Patent No. US20020110869A1
; GENERAL INFORMATION:
; APPLICANT: KOVESDI, IMRE
  APPLICANT: BRUDER, JOSEPH T
  TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING CHIMERIC PROTEIN AND RELATED
VECTOR, CELL AND
; TITLE OF INVENTION: METHOD OF EXPRESSION
; FILE REFERENCE: 203591
; CURRENT APPLICATION NUMBER: US/09/736,743A
; CURRENT FILING DATE: 2000-12-17
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus
US-09-736-743A-2
                        27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                            0; Gaps
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                           0;
Qy
           5 ROR 7
             \Box\Box
           5 RQR 7
Db
RESULT 26
US-09-984-056-103
; Sequence 103, Application US/09984056
; Patent No. US20020120106A1
; GENERAL INFORMATION:
; APPLICANT: BOGOCH, SAMUEL
 APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: ANTHRAX AND SMALL POX REPLIKINS AND METHODS OF USE
  FILE REFERENCE: 09425-46903
  CURRENT APPLICATION NUMBER: US/09/984,056
  CURRENT FILING DATE: 2001-10-26
  PRIOR APPLICATION NUMBER: 60/303,396
  PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 09/146,755
; PRIOR FILING DATE: 1998-09-04
  PRIOR APPLICATION NUMBER: 09/817,144
  PRIOR FILING DATE: 2001-03-27
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Best Local Similarity 100.0%; Pred. No. 8.3e+03;

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PRIOR APPLICATION NUMBER: 08/198,139
   PRIOR FILING DATE: 1994-02-17
  NUMBER OF SEQ ID NOS: 103
  SOFTWARE: PatentIn 2.1
; SEQ ID NO 103
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Variola virus
US-09-984-056-103
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
            3 KER 5
Qу
              +111
            1 KER 3
Db
RESULT 27
US-09-928-175-25
; Sequence 25, Application US/09928175
; Patent No. US20020123618A1
; GENERAL INFORMATION:
  APPLICANT: Paszty, Christopher J.
  APPLICANT: Gong, Jianhua
  APPLICANT: Daugherty, Betsy
  APPLICANT: Rogers, No. US20020123618A1ma
  TITLE OF INVENTION: Leucine-Rich G Protein Coupled Receptor-8 Molecules and
   TITLE OF INVENTION: Uses Thereof
  FILE REFERENCE: 00-1229
  CURRENT APPLICATION NUMBER: US/09/928,175
  CURRENT FILING DATE: 2001-08-10
  PRIOR APPLICATION NUMBER: 60/224,455
  PRIOR FILING DATE: 2000-08-10
  NUMBER OF SEQ ID NOS: 42
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 25
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-928-175-25
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
  Matches
           3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
            5 RQR 7
Qу
             111
            7 RQR 9
Db
RESULT 28
US-09-995-542-13
; Sequence 13, Application US/09995542
; Patent No. US20020127647A1
; GENERAL INFORMATION:
```

```
APPLICANT: Shutter, John
   APPLICANT: Ulias, Laarni
   TITLE OF INVENTION: ATP-Binding Cassette Transporter-Like Molecules and
   TITLE OF INVENTION: Uses Thereof
   FILE REFERENCE: 00-658-A
   CURRENT APPLICATION NUMBER: US/09/995,542
   CURRENT FILING DATE: 2001-11-28
   PRIOR APPLICATION NUMBER: 60/253,520
   PRIOR FILING DATE: 2000-11-28
  NUMBER OF SEQ ID NOS: 24
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-995-542-13
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches
           3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
            5 RQR 7
Qу
              | | |
            7 RQR 9
Db
RESULT 29
US-09-872-832-37
; Sequence 37, Application US/09872832
; Patent No. US20020131960A1
; GENERAL INFORMATION:
  APPLICANT: Memorial Sloan-Kettering Cancer Center
  TITLE OF INVENTION: ARTIFICIAL ANTIGEN PRESENTING CELLS AND METHODS OF USE
THEREOF
  FILE REFERENCE: 830002-2003.1
  CURRENT APPLICATION NUMBER: US/09/872,832
  CURRENT FILING DATE: 2001-06-01
  PRIOR APPLICATION NUMBER: 60/209,157
  PRIOR FILING DATE: 2000-02-06
  NUMBER OF SEQ ID NOS: 49
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 37
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-872-832-37
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
 Matches
            3 KER 5
Qу
             \perp
Db
            4 KER 6
```

RESULT 30

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US-09-927-850-18
; Sequence 18, Application US/09927850
; Patent No. US20020137137A1
; GENERAL INFORMATION:
  APPLICANT: Welcher, Andrew
  APPLICANT: Wen, Duanzhi
  APPLICANT: Kelly, Michael
  TITLE OF INVENTION: Interferon-Like Molecules and Uses Thereof
   FILE REFERENCE: 99,372-F
   CURRENT APPLICATION NUMBER: US/09/927,850
   CURRENT FILING DATE: 2001-08-10
   PRIOR APPLICATION NUMBER: 09/724,860
   PRIOR FILING DATE: 2000-11-28
   PRIOR APPLICATION NUMBER: 60/169,720
   PRIOR FILING DATE: 1999-12-08
  NUMBER OF SEQ ID NOS: 39
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 18
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-927-850-18
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
           3; Conservative
                                0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RQR 7
Qу
             111
            7 RQR 9
RESULT 31
US-09-833-079-2
; Sequence 2, Application US/09833079
; Patent No. US20020142008A1
; GENERAL INFORMATION:
; APPLICANT: O'HANLEY, PETER
; APPLICANT: DENICH, KENNETH
  APPLICANT: SCHMIDT, M. ALEXANDER
  TITLE OF INVENTION: IMMUNOGENIC PILI PRESENTING FOREIGN PEPTIDES, THEIR
  TITLE OF INVENTION: PRODUCTION AND USE
  FILE REFERENCE: 050939/0104
  CURRENT APPLICATION NUMBER: US/09/833,079
  CURRENT FILING DATE: 2001-04-12
  NUMBER OF SEQ ID NOS: 39
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
;
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
   OTHER INFORMATION: peptide
US-09-833-079-2
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
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Matches
            3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                            0;
Qу
           1 AKK 3
             Db
            8 AKK 10
RESULT 32
US-09-833-079-17
; Sequence 17, Application US/09833079
; Patent No. US20020142008A1
; GENERAL INFORMATION:
  APPLICANT: O'HANLEY, PETER
  APPLICANT: DENICH, KENNETH
  APPLICANT: SCHMIDT, M. ALEXANDER
  TITLE OF INVENTION: IMMUNOGENIC PILI PRESENTING FOREIGN PEPTIDES, THEIR
  TITLE OF INVENTION: PRODUCTION AND USE
   FILE REFERENCE: 050939/0104
  CURRENT APPLICATION NUMBER: US/09/833,079
  CURRENT FILING DATE: 2001-04-12
; NUMBER OF SEQ ID NOS: 39
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 17
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
   OTHER INFORMATION: peptide
US-09-833-079-17
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           1 AKK 3
Qу
             -111
           8 AKK 10
RESULT 33
US-09-984-183-4
; Sequence 4, Application US/09984183
; Patent No. US20020142983A1
; GENERAL INFORMATION:
  APPLICANT: AGRAWAL, BABITA
 APPLICANT: LONGENECKER, MICHAEL B.
  TITLE OF INVENTION: MUC-1 ANTAGONISTS AND METHODS OF TREATING IMMUNE
  TITLE OF INVENTION: DISORDERS
  FILE REFERENCE: 042881/0130
  CURRENT APPLICATION NUMBER: US/09/984,183
  CURRENT FILING DATE: 2001-10-29
  PRIOR APPLICATION NUMBER: 09/457,354
  PRIOR FILING DATE: 2001-10-29
  PRIOR APPLICATION NUMBER: 60/111,973
  PRIOR FILING DATE: 1998-12-11
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Best Local Similarity 100.0%; Pred. No. 8.3e+03;

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; NUMBER OF SEQ ID NOS: 30
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus
US-09-984-183-4
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                            0;
           5 RQR 7
Qу
             -1.11
Db
           7 RQR 9
RESULT 34
US-09-949-196-15
; Sequence 15, Application US/09949196
; Patent No. US20020147145A1
; GENERAL INFORMATION:
; APPLICANT: Zealand Pharmaceuticals A/S
; TITLE OF INVENTION: MATERIALS AND METHODS RELATING TO THE DEGRADATION OF
Cdc25A IN RESPONSE
  TITLE OF INVENTION: TO DNA DAMAGE
   FILE REFERENCE: 55888 (45487)
  CURRENT APPLICATION NUMBER: US/09/949,196
  CURRENT FILING DATE: 2001-07-09
; NUMBER OF SEQ ID NOS: 45
 SOFTWARE: PatentIn version 3.1
; SEQ ID NO 15
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-949-196-15
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative
                             0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                           0;
           5 RQR 7
Qу
             7 RQR 9
Db
RESULT 35
US-09-948-018-22
; Sequence 22, Application US/09948018
; Patent No. US20020150977A1
; GENERAL INFORMATION:
; APPLICANT: Theill et al
; TITLE OF INVENTION: THE RECEPTOR-LIKE MOLECULES AND USES THEREOF
; FILE REFERENCE: 01017/37677
```

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CURRENT APPLICATION NUMBER: US/09/948,018
   CURRENT FILING DATE: 2001-09-05
   PRIOR APPLICATION NUMBER: US 60/230,191
   PRIOR FILING DATE: 2000-09-05
   NUMBER OF SEQ ID NOS: 45
   SOFTWARE: PatentIn version 3.1
; SEQ ID NO 22
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Peptide of HIV TAT protein
US-09-948-018-22
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.3e+03;
                                                  0;
  Matches
             3; Conservative 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            5 ROR 7
Qу
              | | |
Db ·
            7 RQR 9
RESULT 36
US-09-995-515-14
; Sequence 14, Application US/09995515
; Patent No. US20020151695A1
; GENERAL INFORMATION:
   APPLICANT: Jing, Shuqian
   TITLE OF INVENTION: Transforming Growth Factor-Beta-Related Molecules and
   TITLE OF INVENTION: Uses Thereof
   FILE REFERENCE: 00-659-A
   CURRENT APPLICATION NUMBER: US/09/995,515
   CURRENT FILING DATE: 2001-11-28
   PRIOR APPLICATION NUMBER: 60/253,476
   PRIOR FILING DATE: 2000-11-28
  NUMBER OF SEQ ID NOS: 27
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 14
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-995-515-14
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.3e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 ROR 7
Qу
              \square
Db
            7 RQR 9
RESULT 37
US-09-071-838-204
; Sequence 204, Application US/09071838
; Patent No. US20020152501A1
  GENERAL INFORMATION:
     APPLICANT: Fischer, Robert L.
```

```
APPLICANT: Ohad, Nir
     APPLICANT: Kiyosue, Tomohiro
;
     APPLICANT: Yadegari, Ramin
;
     APPLICANT: Margossian, Linda
     APPLICANT: Harada, John
     APPLICANT: Goldberg, Robert B.
     TITLE OF INVENTION: Nucleic Acids That Control Seed and
     TITLE OF INVENTION: Fruit Development in Plants
     NUMBER OF SEQUENCES: 324
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend and Crew LLP
       STREET: Two Embarcadero Center, Eighth Floor
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94111-3834
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/09/071,838
      FILING DATE: 01-MAY-1998
      CLASSIFICATION: 800
    ATTORNEY/AGENT INFORMATION:
      NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
      REFERENCE/DOCKET NUMBER: 023070-086100US
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 576-0200
       TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 204:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-071-838-204
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
           3; Conservative
                               0; Mismatches
                                                0; Indels
                                                               0; Gaps
                                                                           0;
           7 RKD 9
Qу
             +111
Db
           3 RKD 5
RESULT 38
US-09-895-593-13
; Sequence 13, Application US/09895593
; Patent No. US20020160949A1
; GENERAL INFORMATION:
; APPLICANT: Pandey, Akhilesh
; APPLICANT: Ozaki, Katsutoshi
; APPLICANT: Baumann, Heinz
```

```
; APPLICANT: Levin, Steven D.
  APPLICANT: Farr, Andrew G.
  APPLICANT: Ziegler, Steven F.
  APPLICANT: Leonard, Warren J.
  APPLICANT: Lodish, Harvey F.
  TITLE OF INVENTION: Thymic Stromal Lymphopoietin Receptor Molecules and
  TITLE OF INVENTION: Uses Thereof
   FILE REFERENCE: 00-514-E
  CURRENT APPLICATION NUMBER: US/09/895,593
  CURRENT FILING DATE: 2001-06-28
  PRIOR APPLICATION NUMBER: 60/215,658
  PRIOR FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 16
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
US-09-895-593-13
  Query Match
                         27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels
 Matches
                                                               0; Gaps
           5 RQR 7
Qу
            -111
Db
           7 RQR 9
RESULT 39
US-09-896-738-20
; Sequence 20, Application US/09896738
; Patent No. US20020165347A1
; GENERAL INFORMATION:
; APPLICANT: Fox, Michael
; APPLICANT: Sullivan, John K.
; APPLICANT: Fang, Mei
  TITLE OF INVENTION: B7-Like Molecules and Uses Thereof
; FILE REFERENCE: 00-513-A
  CURRENT APPLICATION NUMBER: US/09/896,738
  CURRENT FILING DATE: 2001-06-29
  PRIOR APPLICATION NUMBER: 60/215,645
 PRIOR FILING DATE: 2000-06-30
 NUMBER OF SEQ ID NOS: 23
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 20
   LENGTH: 11
  TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
US-09-896-738-20
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
          3; Conservative
                              0; Mismatches
                                                 0; Indels 0; Gaps
                                                                           0;
Qу
           5 RQR 7
             111
```

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RESULT 40
US-09-981-286A-2
; Sequence 2, Application US/09981286A
; Publication No. US20020192799A1
; GENERAL INFORMATION:
  APPLICANT: Watowich, Stanley J.
  APPLICANT: Weaver, Scott C.
  APPLICANT:
              Davey, Robert A.
  TITLE OF INVENTION: Drug Discovery Methods
  FILE REFERENCE: 265.00260101
  CURRENT APPLICATION NUMBER: US/09/981,286A
  CURRENT FILING DATE: 2001-10-15
  PRIOR APPLICATION NUMBER: US 60/240, 187
  PRIOR FILING DATE: 2000-10-13
; NUMBER OF SEQ ID NOS: 36
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Cell-permeant polypeptide
US-09-981-286A-2
  Query Match
                          27.3%; Score 3; DB 9; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 ROR 7
Qy
              111
Db
            7 RQR 9
RESULT 41
US-09-798-051-10
; Sequence 10, Application US/09798051
; Publication No. US20030008961A1
; GENERAL INFORMATION:
  APPLICANT:
              Zhang, Ke
              Cam, Linh
  APPLICANT:
  APPLICANT: Nakayama, Naoki
  TITLE OF INVENTION: Chordin-Like-2 Molecules and Uses Thereof
  FILE REFERENCE: 01-005
  CURRENT APPLICATION NUMBER: US/09/798,051
  CURRENT FILING DATE: 2001-03-05
; NUMBER OF SEQ ID NOS: 21
  SOFTWARE:
            PatentIn Ver. 2.0
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human immunodeficiency virus type 1
US-09-798-051-10
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
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```
Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
            3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
Qy
           5 RQR 7
             111
Db
           7 RQR 9
RESULT 42
US-09-948-193-20
; Sequence 20, Application US/09948193
; Publication No. US20030027335A1
; GENERAL INFORMATION:
  APPLICANT: Ruley, H. Earl
  APPLICANT: Jo, Daewoong
  TITLE OF INVENTION: Genome Engineering by Cell-Permeable DNA
  TITLE OF INVENTION: Site-Specific Recombinases
  FILE REFERENCE: 22000.0109U2
; CURRENT APPLICATION NUMBER: US/09/948,193
  CURRENT FILING DATE: 2001-09-07
; PRIOR APPLICATION NUMBER: 60/230,690
; PRIOR FILING DATE: 2000-09-07
; NUMBER OF SEQ ID NOS: 21
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 20
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human Immunodeficiency Virus
   OTHER INFORMATION: Description: MTS from HIV Tat
US-09-948-193-20
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
                             0; Mismatches 0;
 Matches
           3; Conservative
                                                     Indels
                                                               0; Gaps
                                                                           0;
           5 RQR 7
Qy
             Db
           7 RQR 9
RESULT 43
US-09-906-393A-9
; Sequence 9, Application US/09906393A
; Publication No. US20030039970A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Zhou
; APPLICANT: Xiao, Wuhan
  TITLE OF INVENTION: METHOD OF PROGNOSING CANCER AND THE PROTEINS INVOLVED
  FILE REFERENCE: 1720-1-001CIP
  CURRENT APPLICATION NUMBER: US/09/906,393A
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 60/218,761
; PRIOR FILING DATE: 2000-07-17
; NUMBER OF SEQ ID NOS: 36
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
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LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-906-393A-9
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                            0;
                                                                0; Gaps
 Matches
           1 AKK 3
Qу
             -111
           3 AKK 5
Db
RESULT 44
US-09-134-793-2
; Sequence 2, Application US/09134793
; Publication No. US20030040038A1
  GENERAL INFORMATION:
    APPLICANT: Dowdy, Steven F.
    APPLICANT: Jessee, Joel A.
    TITLE OF INVENTION: INDUCIBLE REGULATORY SYSTEM
    TITLE OF INVENTION: AND USE THEREOF
    NUMBER OF SEQUENCES: 8
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Dike, Bronstein, Roberts & Cushman, LLP
       STREET: 130 Water Street
      CITY: Boston
      STATE: MA
       COUNTRY: USA
      ZIP: 02109
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Diskette
       COMPUTER: IBM Compatible
       OPERATING SYSTEM: DOS
       SOFTWARE: FastSEQ for Windows Version 2.0
;
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/134,793
       FILING DATE:
;
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 60/056,713
       FILING DATE: 22-AUG-1997
     ATTORNEY/AGENT INFORMATION:
       NAME: Corless, Peter F
       REGISTRATION NUMBER: 33,860
       REFERENCE/DOCKET NUMBER: 47275
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 617-523-3400
       TELEFAX: 617-523-6440
       TELEX:
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
```

```
US-09-134-793-2
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches
 Matches
                                                  0; Indels
                                                                0;
                                                                    Gaps
                                                                            0;
           5 RQR 7
Qу
             7 RQR 9
Db
RESULT 45
US-09-882-291-43
; Sequence 43, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
; APPLICANT: Zealand Pharmaceuticals A/S
; TITLE OF INVENTION: No. US20030040472A1el Peptide Conjugates
; FILE REFERENCE: 007-2001
; CURRENT APPLICATION NUMBER: US/09/882,291
  CURRENT FILING DATE: 2001-06-15
  NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 43
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-43
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
            5 RQR 7
Qу
             +11
            7 RQR 9
Db
RESULT 46
US-09-775-052-2
; Sequence 2, Application US/09775052
; Publication No. US20030054000A1
; GENERAL INFORMATION:
  APPLICANT: Dowdy, Steven F.
   TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
   FILE REFERENCE: 48881/1742
   CURRENT APPLICATION NUMBER: US/09/775,052
   CURRENT FILING DATE: 2001-02-01
   PRIOR APPLICATION NUMBER: 09/208,966
; PRIOR FILING DATE: 1998-12-10
  PRIOR APPLICATION NUMBER: 60/082,402
   PRIOR FILING DATE: 1998-04-20
   PRIOR APPLICATION NUMBER: 60/069,012
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MOLECULE TYPE: protein

```
PRIOR FILING DATE: 1997-12-10
 NUMBER OF SEO ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-775-052-2
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           5 RQR 7
QУ
             111
           7 RQR 9
Db
RESULT 47
US-09-775-052-16
; Sequence 16, Application US/09775052
; Publication No. US20030054000A1
; GENERAL INFORMATION:
  APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/775,052
  CURRENT FILING DATE: 2001-02-01
  PRIOR APPLICATION NUMBER: 09/208,966
  PRIOR FILING DATE: 1998-12-10
 PRIOR APPLICATION NUMBER: 60/082,402
  PRIOR FILING DATE: 1998-04-20
  PRIOR APPLICATION NUMBER: 60/069,012
  PRIOR FILING DATE: 1997-12-10
;
; NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-775-052-16
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
           5 ROR 7
Qy
             111
           6 RQR 8
Db
RESULT 48
US-09-775-052-52
; Sequence 52, Application US/09775052
; Publication No. US20030054000A1
; GENERAL INFORMATION:
; APPLICANT: Dowdy, Steven F.
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TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/775,052
  CURRENT FILING DATE: 2001-02-01
  PRIOR APPLICATION NUMBER: 09/208,966
  PRIOR FILING DATE: 1998-12-10
  PRIOR APPLICATION NUMBER: 60/082,402
  PRIOR FILING DATE: 1998-04-20
  PRIOR APPLICATION NUMBER: 60/069,012
  PRIOR FILING DATE: 1997-12-10
  NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 52
   LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-775-052-52
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RQR 7
Qу
             111
Db
           7 RQR 9
RESULT 49
US-09-847-946A-124
; Sequence 124, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
  APPLICANT: May, Michael J
  APPLICANT: Ghosh, Sankar
  APPLICANT: Findeis, Mark A
;
; APPLICANT: Phillips, Kathryn
  APPLICANT: Hannig, Gerhard
  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
  FILE REFERENCE: PPI-119
  CURRENT APPLICATION NUMBER: US/09/847,946A
  CURRENT FILING DATE: 2001-05-02
  PRIOR APPLICATION NUMBER: 60/201,261
  PRIOR FILING DATE: 2000-05-02
  PRIOR APPLICATION NUMBER: 09/643,260
  PRIOR FILING DATE: 2000-08-22
  NUMBER OF SEQ ID NOS: 160
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 124
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:membrane
   OTHER INFORMATION: translocation domain
US-09-847-946A-124
 Query Match
                        27.3%; Score 3; DB 10; Length 11;
```

```
3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
 Matches
           5 ROR 7
Qу
             \perp
Db
           7 ROR 9
RESULT 50
US-09-847-946A-125
; Sequence 125, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
  APPLICANT: May, Michael J
  APPLICANT: Ghosh, Sankar
  APPLICANT: Findeis, Mark A
  APPLICANT: Phillips, Kathryn
; APPLICANT: Hannig, Gerhard
  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
; FILE REFERENCE: PPI-119
  CURRENT APPLICATION NUMBER: US/09/847,946A
  CURRENT FILING DATE: 2001-05-02
  PRIOR APPLICATION NUMBER: 60/201,261
  PRIOR FILING DATE: 2000-05-02
  PRIOR APPLICATION NUMBER: 09/643,260
  PRIOR FILING DATE: 2000-08-22
 NUMBER OF SEQ ID NOS: 160
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 125
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:membrane
   OTHER INFORMATION: translocation domain
US-09-847-946A-125
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                           0;
 Matches
           5 RQR 7
Qу
             \Box
Db
           7 RQR 9
RESULT 51
US-09-876-904A-5
; Sequence 5, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
```

Best Local Similarity 100.0%; Pred. No. 8.3e+03;

```
FILE REFERENCE: TB-2002.00
   CURRENT APPLICATION NUMBER: US/09/876,904A
   CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
   PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Fusogenic/NLS peptide
   OTHER INFORMATION: conjugate from TAT of HIV
US-09-876-904A-5
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
                                                                            0;
 Matches 3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
           5 ROR 7
Qу
             | | |
           7 RQR 9
Db
RESULT 52
US-09-876-904A-10
; Sequence 10, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
   FILE REFERENCE: TB-2002.00
   CURRENT APPLICATION NUMBER: US/09/876,904A
   CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
   PRIOR FILING DATE: 2000-06-09
   NUMBER OF SEQ ID NOS: 629
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: Synthetic fusogenic
    OTHER INFORMATION: peptide of TAT
US-09-876-904A-10
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
           3; Conservative
                              0; Mismatches 0; Indels
 Matches
```

Db

```
RESULT 53
US-09-876-904A-50
; Sequence 50, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
 CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
 PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 50
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic Human c-myc
   OTHER INFORMATION: oncoprotein
US-09-876-904A-50
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           5 ROR 7
Qу
             \perp
           1 RQR 3
RESULT 54
US-09-876-904A-111
; Sequence 111, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
 TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
 PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
```

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SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 111
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic HIV Tat
protein
US-09-876-904A-111
                        27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           5 RQR 7
Qу
             \Pi\Pi
Db
           6 RQR 8
RESULT 55
US-09-876-904A-200
; Sequence 200, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
 FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 200
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Saccharomyces cerevisiae
   OTHER INFORMATION: Karyophilic peptide
US-09-876-904A-200
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                                                               0; Gaps
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                           0;
           1 AKK 3
Qу
             -111
Db
           3 AKK 5
RESULT 56
US-09-876-904A-232
; Sequence 232, Application US/09876904A
```

```
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 232
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Unknown Organism
    FEATURE:
    OTHER INFORMATION: Description of Unknown Organism: Hydrophilic protein
US-09-876-904A-232
                          27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            7 RKD 9
Qу
             | \cdot |
            8 RKD 10
Db
RESULT 57
US-09-876-904A-237
; Sequence 237, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 237
   LENGTH: 11
ï
   TYPE: PRT
   ORGANISM: Unknown Organism
   OTHER INFORMATION: Description of Unknown Organism: Hydrophilic protein
US-09-876-904A-237
```

```
Best Local Similarity 100.0%; Pred. No. 8.3e+03;
             3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
            2 KKE 4
QУ
              +1
Db
            7 KKE 9
RESULT 58
US-09-876-904A-273
; Sequence 273, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 273
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Drosophila sp.
   FEATURE:
   OTHER INFORMATION: Recombination repair protein 1
US-09-876-904A-273
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
 Matches
           3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           2 KKE 4
             \perp
Dh
           7 KKE 9
RESULT 59
US-09-876-904A-354
; Sequence 354, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
 TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
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27.3%; Score 3; DB 10; Length 11;

Query Match

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CURRENT APPLICATION NUMBER: US/09/876,904A
   CURRENT FILING DATE: 2001-06-08
   PRIOR APPLICATION NUMBER: US 60/210,925
   PRIOR FILING DATE: 2000-06-09
   NUMBER OF SEQ ID NOS: 629
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 354
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
    FEATURE:
    OTHER INFORMATION: Human ATF-3 (in basic region that binds DNA)
US-09-876-904A-354
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
                              0; Mismatches
  Matches
             3; Conservative
                                                0;
                                                     Indels
                                                                 0; Gaps
                                                                             0;
            2 KKE 4
Qу
             111
            7 KKE 9
Db
RESULT 60
US-09-876-904A-434
; Sequence 434, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 434
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Drosophila sp.
   FEATURE:
   OTHER INFORMATION: Drosophila ultrabiothorax protein (from the
    OTHER INFORMATION: conserved 61 amino acid homeodomain segment only).
US-09-876-904A-434
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
                         100.0%; Pred. No. 8.3e+03;
  Best Local Similarity
 Matches
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                0;
                                                                    Gaps
                                                                            0;
Qy
            2 KKE 4
              Db
            8 KKE 10
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US-09-876-904A-591
; Sequence 591, Application US/09876904A
; Publication No. US20030072794A1
: GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 591
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Trout testis H1 (194
;
aa).
US-09-876-904A-591
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
            3; Conservative 0; Mismatches 0; Indels
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                                                                             0;
           1 AKK 3
Qу
             III
           1 AKK 3
RESULT 62
US-09-876-904A-597
; Sequence 597, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
 TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
 CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
 NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 597
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RESULT 61

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LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Parechinus angulosus
   OTHER INFORMATION: Sea urchin Parechinus angulosus sperm H1 (248 aa).
US-09-876-904A-597
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
           1 AKK 3
Qу
             +11
           1 AKK 3
Db
RESULT 63
US-09-820-053A-113
; Sequence 113, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
  APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
  FILE REFERENCE: HELX027
 CURRENT APPLICATION NUMBER: US/09/820,053A
; CURRENT FILING DATE: 2001-03-28
; NUMBER OF SEQ ID NOS: 165
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 113
   LENGTH: 11
   TYPE: PRT
    ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
;
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
   LOCATION: (11)
    OTHER INFORMATION: AMIDATION
US-09-820-053A-113
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0; Indels
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           1 AKK 3
             - 1 1 1
           9 AKK 11
RESULT 64
US-09-820-053A-139
; Sequence 139, Application US/09820053A
; Publication No. US20030083243A1
; GENERAL INFORMATION:
; APPLICANT: Owen, Donald R.
  TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
  FILE REFERENCE: HELX027
; CURRENT APPLICATION NUMBER: US/09/820,053A
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CURRENT FILING DATE: 2001-03-28
  NUMBER OF SEQ ID NOS: 165
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 139
   LENGTH: 11
   TYPE: PRT
   ORGANISM: ARTIFICIAL SEQUENCE
   FEATURE:
   OTHER INFORMATION: SYNTHETIC SEQUENCE
   NAME/KEY: MOD RES
   LOCATION: (11)
    OTHER INFORMATION: AMIDATION
US-09-820-053A-139
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
           3; Conservative 0; Mismatches 0;
 Matches
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                                                                0; Gaps
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           1 AKK 3
Qу
             Db
           8 AKK 10
RESULT 65
US-09-845-612B-20
; Sequence 20, Application US/09845612B
; Publication No. US20030083261A1
; GENERAL INFORMATION:
; APPLICANT: YU, HONGTAO
 APPLICANT: TANG, ZHANYUN
  APPLICANT: LUO, XUELIAN
  APPLICANT: RIZO-REY, JOSE
  TITLE OF INVENTION: A CLASS OF 12MER PEPTIDES THAT INHIBIT THE FUNCTINO OF
THE MITOTIC CHECK
; TITLE OF INVENTION: POINT PROTEIN MAD2
  FILE REFERENCE: UTSD:795
  CURRENT APPLICATION NUMBER: US/09/845,612B
  CURRENT FILING DATE: 2001-04-27
; NUMBER OF SEQ ID NOS: 20
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 20
   LENGTH: 11
   TYPE: PRT
   ORGANISM: HIV-TAT PROTEIN
US-09-845-612B-20
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
 Matches
                             0; Mismatches 0; Indels
           3; Conservative
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           5 RQR 7
Qу
             \perp 1 \perp 1
Db
           7 RQR 9
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RESULT 66 US-09-992-665-55

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; Sequence 55, Application US/09992665
; Publication No. US20030092009A1
; GENERAL INFORMATION:
: APPLICANT: Kaia Palm
; TITLE OF INVENTION: PROFILING TUMOR SPECIFIC MARKERS FOR THE
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF NEOPLASTIC DISEASE
; FILE REFERENCE: CEMINES.002A
; CURRENT APPLICATION NUMBER: US/09/992,665
  CURRENT FILING DATE: 2001-11-13
   PRIOR APPLICATION NUMBER: 60/249,508
  PRIOR FILING DATE: 2000-11-16
; NUMBER OF SEQ ID NOS: 380
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 55
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Probe
US-09-992-665-55
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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           8 KDT 10
Qу
             3 KDT 5
Db
RESULT 67
US-09-865-548A-35
; Sequence 35, Application US/09865548A
; Publication No. US20030096298A1
; GENERAL INFORMATION:
; APPLICANT: Barnea, Eilon
; APPLICANT: Beer, Ilan
; APPLICANT: Ziv, Tamar
; APPLICANT: Admon, Arie
; TITLE OF INVENTION: METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING TO MHC
MOLECULES,
; TITLE OF INVENTION: PEPTIDES IDENTIFIED THEREBY AND THEIR USES
; FILE REFERENCE: 01/22080
  CURRENT APPLICATION NUMBER: US/09/865,548A
  CURRENT FILING DATE: 2001-05-16
  PRIOR APPLICATION NUMBER: US 60/290,958
  PRIOR FILING DATE: 2001-05-16
; NUMBER OF SEQ ID NOS: 204
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 35
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: Artificial Sequence
;
   FEATURE:
   OTHER INFORMATION: synthetic peptide
US-09-865-548A-35
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27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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                                                     Indels
                                                                0; Gaps
                                                                            0;
            3 KER 5
Qy
              \perp
Db
            4 KER 6
RESULT 68
US-09-997-465B-2
; Sequence 2, Application US/09997465B
; Publication No. US20030118610A1
; GENERAL INFORMATION:
  APPLICANT: Stern, William
  APPLICANT: Mehta, No. US20030118610Aler M.
  APPLICANT: Ray, Martha V.L.
   TITLE OF INVENTION: IMPROVED ORAL DELIVERY OF PEPTIDES USING ENZYME-CLEAVABLE
MEMBRANE
   TITLE OF INVENTION: TRANSLOCATORS
   FILE REFERENCE: P/546-247
   CURRENT APPLICATION NUMBER: US/09/997,465B
   CURRENT FILING DATE: 2001-11-29
; NUMBER OF SEQ ID NOS: 22
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-997-465B-2
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches
            3; Conservative 0; Mismatches 0;
                                                      Indels
                                                                0; Gaps
                                                                            0;
            5 RQR 7
Qу
             \perp
Db
            7 RQR 9
RESULT 69
US-09-997-465B-18
; Sequence 18, Application US/09997465B
; Publication No. US20030118610A1
; GENERAL INFORMATION:
  APPLICANT: Stern, William
; APPLICANT: Mehta, No. US20030118610Aler M.
; APPLICANT: Ray, Martha V.L.
  TITLE OF INVENTION: IMPROVED ORAL DELIVERY OF PEPTIDES USING ENZYME-CLEAVABLE
MEMBRANE
  TITLE OF INVENTION: TRANSLOCATORS
   FILE REFERENCE: P/546-247
  CURRENT APPLICATION NUMBER: US/09/997,465B
; CURRENT FILING DATE: 2001-11-29
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
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TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-997-465B-18
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                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
             3; Conservative
                                0; Mismatches
                                                                  0; Gaps
                                                  0; Indels
                                                                              0;
            5 RQR 7
Qу
              \mathbf{1} \mathbf{1} \mathbf{1}
Db
            7 RQR 9
RESULT 70
US-09-911-261A-18
; Sequence 18, Application US/09911261A
; Publication No. US20030134350A1
; GENERAL INFORMATION:
; APPLICANT: Sera, Takashi
   TITLE OF INVENTION: Zinc Finger Domain Recognition Code and Uses Thereof
   FILE REFERENCE: 109845.135
   CURRENT APPLICATION NUMBER: US/09/911,261A
   CURRENT FILING DATE: 2001-07-23
   PRIOR APPLICATION NUMBER: US 60/220,060
   PRIOR FILING DATE: 2000-07-21
   NUMBER OF SEQ ID NOS: 69
   SOFTWARE: PatentIn version 3.0
; SEQ ID NO 18
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus
US-09-911-261A-18
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  Best Local Similarity
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  Matches
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                                                                      Gaps
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Qу
            5 RQR 7
              7 RQR 9
RESULT 71
US-09-798-053-10
; Sequence 10, Application US/09798053
; Publication No. US20030158378A1
; GENERAL INFORMATION:
  APPLICANT: Zhang, Ke
              Cam, Linh
  APPLICANT:
   APPLICANT: Nakayama, Naoki
   TITLE OF INVENTION: Chordin-Like-2 Molecules and Uses Thereof
  FILE REFERENCE: 01-005
  CURRENT APPLICATION NUMBER: US/09/798,053
  CURRENT FILING DATE: 2003-03-25
  NUMBER OF SEQ ID NOS: 21
  SOFTWARE: PatentIn Ver. 2.0
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LENGTH: 11

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; SEQ ID NO 10
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Human immunodeficiency virus type 1
US-09-798-053-10
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  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
  Matches
             3; Conservative
                                0; Mismatches
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Qу
             -111
            7 RQR 9
Db
RESULT 72
US-09-854-248-20
; Sequence 20, Application US/09854248
; Publication No. US20030175247A1
; GENERAL INFORMATION:
; APPLICANT: Salgaller, Michael L.
  APPLICANT: Boynton, Alton L.
  TITLE OF INVENTION: METHOD TO INCREASE CLASS I PRESENTATION OF EXOGENOUS
  TITLE OF INVENTION: ANTIGENS BY HUMAN DENDRITIC CELLS
  FILE REFERENCE: 20093-8-1US
  CURRENT APPLICATION NUMBER: US/09/854,248
  CURRENT FILING DATE: 2001-05-11
  PRIOR APPLICATION NUMBER: 60/203,758
; PRIOR FILING DATE: 2000-05-12
; NUMBER OF SEQ ID NOS: 37
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-854-248-20
  Query Match
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  Best Local Similarity
                         100.0%; Pred. No. 8.3e+03;
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                                                 0; Indels
                                                                0; Gaps
                                                                            0;
            2 KKE 4
Qу
              | | | |
            9 KKE 11
RESULT 73
US-09-962-756-1790
; Sequence 1790, Application US/09962756
; Publication No. US20030195147A1
; GENERAL INFORMATION:
  APPLICANT: PILLUTLA, RENUKA
; APPLICANT: BRISSETTE, RENEE
 APPLICANT: BLUME, ARTHUR J.
              SCHAFFER, LAUGE
 APPLICANT:
; APPLICANT: BRANDT, JAKOB
; APPLICANT: GOLDSTEIN, NEIL I.
```

```
APPLICANT: SPETZLER, JANE
   APPLICANT: OSTERGAARD, SOREN
   APPLICANT: HANSEN, PER HERTZ
  TITLE OF INVENTION: INSULIN AND IGF-1 RECEPTOR AGONISTS AND ANTAGONISTS
   FILE REFERENCE: 1878-4051US1
   CURRENT APPLICATION NUMBER: US/09/962,756
   CURRENT FILING DATE: 2001-09-24
   PRIOR APPLICATION NUMBER: 09/538,038
   PRIOR FILING DATE: 2000-03-29
   PRIOR APPLICATION NUMBER: 09/146,127
   PRIOR FILING DATE: 1998-09-02
  NUMBER OF SEQ ID NOS: 2227
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1790
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Artificial Sequence
;
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    OTHER INFORMATION: peptide
US-09-962-756-1790
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 8.3e+03;
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                                                                              0;
            4 ERQ 6
Qу
              111
Db
            8 ERQ 10
RESULT 74
US-09-962-756-2008
; Sequence 2008, Application US/09962756
; Publication No. US20030195147A1
; GENERAL INFORMATION:
; APPLICANT: PILLUTLA, RENUKA
; APPLICANT: BRISSETTE, RENEE
; APPLICANT: BLUME, ARTHUR J.
  APPLICANT: SCHAFFER, LAUGE
  APPLICANT: BRANDT, JAKOB
  APPLICANT: GOLDSTEIN, NEIL I. APPLICANT: SPETZLER, JANE
  APPLICANT: OSTERGAARD, SOREN
  APPLICANT: HANSEN, PER HERTZ
   TITLE OF INVENTION: INSULIN AND IGF-1 RECEPTOR AGONISTS AND ANTAGONISTS
   FILE REFERENCE: 1878-4051US1
   CURRENT APPLICATION NUMBER: US/09/962,756
   CURRENT FILING DATE: 2001-09-24
   PRIOR APPLICATION NUMBER: 09/538,038
   PRIOR FILING DATE: 2000-03-29
   PRIOR APPLICATION NUMBER: 09/146,127
   PRIOR FILING DATE: 1998-09-02
; NUMBER OF SEO ID NOS: 2227
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2008
   LENGTH: 11
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TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
    OTHER INFORMATION: peptide
US-09-962-756-2008
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.3e+03;
          3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
           4 ERQ 6
Qу
             111
Db
           7 ERQ 9
RESULT 75
US-09-784-553C-50
; Sequence 50, Application US/09784553C
; Publication No. US20040043378A1
; GENERAL INFORMATION:
; APPLICANT: ZHOU, MING-MING
; APPLICANT: AGGARWAL, ANEEL
  TITLE OF INVENTION: METHODS OF IDENTIFYING MODULATORS OF BROMODOMAINS
  FILE REFERENCE: 2459-1-003 CIP
  CURRENT APPLICATION NUMBER: US/09/784,553C
  CURRENT FILING DATE: 2003-07-08
  PRIOR APPLICATION NUMBER: 09/510,314
; PRIOR FILING DATE: 2000-02-22
; NUMBER OF SEQ ID NOS: 63
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 50
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: synthetic HIV-1 Tat peptide
   FEATURE:
   NAME/KEY: MOD RES
   LOCATION: (5)...(5)
   OTHER INFORMATION: acetylated lysine
US-09-784-553C-50
 Query Match
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 Matches
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                                                0; Indels
           5 RQR 7
Qу
             | | | |
Db
           8 RQR 10
Search completed: April 8, 2004, 16:35:33
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Job time : 31.3077 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:07; Search time 27.7692 Seconds Run on:

(without alignments)

124.984 Million cell updates/sec

US-09-787-443A-2 Title:

Perfect score: 11

1 AKKERQRKDTQ 11 Sequence:

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1017041 segs, 315518202 residues

Word size :

Total number of hits satisfying chosen parameters: 460

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : SPTREMBL 25:\*

1: sp archea:\*

2: sp\_bacteria:\*

3: sp\_fungi:\*

4: sp\_human:\*

5: sp invertebrate:\*

6: sp mammal:\*

7: sp mhc:\*

8: sp organelle:\*

9: sp phage:\*

10: sp\_plant:\*
11: sp\_rodent:\*

12: sp\_virus:\*

13: sp vertebrate:\*

14: sp unclassified:\*

15: sp rvirus:\*

16: sp bacteriap:\*

17: sp\_archeap:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

용

Result Query

> No. Score Match Length DB ID Description

	1	4	36.4	11	4	Q9Y3G2			094342	homo sapien	
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	3	3	27.3	11	4	Q9H4H5			_	homo sapien	
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	5	2	18.2	11	2	Q9R790				borrelia ga	
	6	2	18.2	11	2	Q9L4F7				bacillus ce	
	7	2	18.2	11	2	Q47606				escherichia	
	8	2	18.2	11	2	Q9R4B1				streptococc	
	9	2	18.2	11	2	Q9S618				prochloroco	
	10	2	18.2	11	2	Q9R5P3				serratia ma	
	11	2	18.2	11	2	Q9EUZ3			_	escherichia	
	12	2	18.2	11	2	Q8RMI8			Q8rmi8	enterococcu	
	13	2	18.2	11	2	Q9RBV0			Q9rbv0	pseudomonas	
	14	2	18.2	11	2	Q9K332				staphylococ	
	15	2	18.2	11	2	Q9RFZ2			Q9rfz2	mycoplasma	
	16	2	18.2	11	2	P95518			P95518	pasteurella	
**	17	2	18.2	11	2	Q47420			Q47420	escherichia	
	18	2	18.2	11	2	Q44090			Q44090	acholeplasm	· * .
	19	2	18.2	11	2	Q56413			Q56413	escherichia	
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	21	2	18.2	11	2	Q91UY9			Q91uy9	escherichia	
	22	2	18.2	11	2	Q8GMU3			Q8gmu3	acinetobact	
	23	2	18.2	11	3	Q9UR95				pichia angu	
	24	2	18.2	11	3	Q9HFN8				candida rug	
	25	2	18.2	11	4	Q14759				homo sapien	
	26	2	18.2	11	4	Q16427				homo sapien	
	27	2	18.2	11	4	060761				homo sapien	
	28	2	18.2	11	4	094785				homo sapien	
	29	2	18.2	11	4	Q8NI03				homo sapien	
	30	2	18.2	11	5	Q9UAR8				aedes aegyp	
	31 32	2	18.2	11 11	5 5	Q9TWX6				manduca sex	
	33	2 2	18.2 18.2	11	5	Q99292 Q8MM58				drosophila heliconius	
	34	2	18.2	11	5	Q86D32				trypanosoma	
	35	2	18.2	11	5	Q86D32				trypanosoma	
	36	2	18.2	11	5	Q95PX6				caenorhabdi	
	37	2	18.2	11	7	Q9UEX7				homo sapien	
	38	2	18.2	11	7	077911				oreochromis	
	39	2	18.2	11	8	Q8MEL7				sida hooker	
	40	2	18.2	11	8	Q8MAZ1				maripa pani	
	41	2	18.2	11	8	Q8MB39				wilsonia hu	
	42	2	18.2	11	8	Q8MEM2	-			lagunaria p	
	43	2	18.2	11	8	Q8MB58				seddera hir	
	44	2	18.2	11	8	Q8MAZ3				maripa repe	
	45	2	18.2	11	8	Q8MES5			Q8mes5	abelmoschus	
	46	2	18.2	11	8	Q8MEP0			Q8mep0	hibiscus pe	
	47	2	18.2	11	8	Q8MES1			Q8 $mes1$	alyogyne pi	
	48	2	18.2	11	8	Q8MEP3			Q8mep3	hibiscus no	
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	50	2	18.2	11	8	Q8MEQ7				hibiscus dr	
	51	2	18.2	11	8	Q35374				paramecium	
	52	2	18.2	11	8	Q8MEL9				pavonia has	
	53	2	18.2	11	8	Q8MB77				odonellia h	
	54	2	18.2	11	8	Q8MER0				hibiscus co	
	55	2	18.2	11	8	Q8MES3				alyogyne cr	
	56	2	18.2	11	8	Q8MB79				aniseia arg	
	57	2	18.2	11	8	Q8MB97		•	Q8mb97	merremia pe	

	_				<u>-</u>	-0 5 1 1 1 1
58	2	18.2	11	8 Q8M		Q8mep5 hibiscus mi
59	2	18.2	11	8 Q8M		Q8merl hibiscus ca
60	2	18.2	11	8 Q8M		Q8mer7 fioria viti
61	2	18.2	11	9 Q38		Q38415 bacteriopha
62	2	18.2	11	9 Q37		Q37925 bacteriopha
63	2	18.2	. 11		S8X4	Q9s8x4 glycine max
64	2	18.2	11	10 Q3	9784	Q39784 gossypium h
65	2	18.2	11	10 083	2070	082070 triticum ae
66	2	18.2	11	10 Q0	<b>4</b> 131	Q04131 lycopersico
67	2	18.2	11	10 P8	3092	P83092 spinacia ol
68	2	18.2	11	11 P9	7755	P97755 rattus norv
69	2	18.2	11	11 Q9	9N81	Q99n81 mus musculu
70	2	18.2	11	11 Q9	JLE6	Q9jle6 rattus norv
71	2	18.2	11	11 Q8	R2J7	Q8r2j7 mesocricetu
72	2	18.2	11	12 P8	9269	P89269 xestia c-ni
73	2	18.2	11	12 Q8	4073	Q84073 influenzavi
74	2	18.2	11		9269	Q69269 equine herp
75	2	18.2	11		00X7	Q800x7 chelydra se
76	2	18.2	11		T285	Q7t285 geochelone
77	2	18.2	11		T284	Q7t284 geochelone
78	2	18.2	11		T283	Q7t283 geochelone
79	2	18.2	11		SX72	Q7sx72 geochelone
80	2	18.2	11		SX71	Q7sx71 geochelone
81	2	18.2	11		DZ32	Q9dz32 human immun
82	2	18.2	11		K7A4	Q9k7a4 bacillus ha
83	1	9.1	11	2 Q9A		Q9aiy6 carsonella
84	1	9.1	11	2 068	237	068237 borrelia bu
85	1	9.1	11	2 Q48	933	Q48933 mycobacteri
86	1	9.1	11	2 Q47		Q47451 escherichia
87	1	9.1	11	2 Q9A		Q9aiz7 carsonella
88	1	9.1	11	2 Q8R		Q8rkn1 escherichia
89	1	9.1	11	2 Q52		Q52526 rhizobium s
90	1	9.1	11	2 Q8K		Q8khl0 streptococc
91	1	9.1	11	2 Q47		Q47602 escherichia
92	$\stackrel{-}{1}$	9.1	11	2 Q8L		Q812t4 neisseria m
93	1	9.1	. 11	2 Q9R		Q9r7u8 pseudomonas
94	$\overline{1}$	9.1	11	2 Q9S		Q9s623 prochloroco
95	1	9.1	11	2 P77		P77404 escherichia
96	1	9.1	11	2 Q9R		Q9rq60 buchnera ap
97	1	9.1	11	2 P96		P96319 desulfovibr
98	1	9.1	11	2 Q93		Q93rm6 staphylococ
99	1	9.1	11	2 Q47		Q47600 escherichia
100	1	9.1	11	2 087		087882 mycobacteri
	_			/		<b>-</b>

## ALIGNMENTS

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ID
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AC
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       01-NOV-1999 (TrEMBLrel. 12, Created)
\mathrm{D}\mathbf{T}
       01-NOV-1999 (TrEMBLrel. 12, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DT
DE
       LSFR2 protein (Fragment).
GN
       LSFR2.
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Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
     NCBI TaxID=9606;
OX
RN
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RP
RX
     MEDLINE=99299247; PubMed=10369878;
RA
     Gilley J., Fried M.;
     "Extensive gene order differences within regions of conserved synteny
RT
     between the Fugu and human genomes: implications for chromosomal
RT
     volution and the cloning of disease genes.";
RT
     Hum. Mol. Genet. 8:1313-1320(1999).
RL
     EMBL; Y17456; CAB44349.1; -.
DR
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                         11
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  Best Local Similarity
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                                 0; Mismatches
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                                                                  0; Gaps
                                                                              0;
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Qу
              \mathbf{H}
Db
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TD
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     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
     Gag polyprotein (Fragment).
GN
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OS
     Human immunodeficiency virus 1.
     Viruses; Retroid viruses; Retroviridae; Lentivirus.
OC
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RX
     Martinez-Picado J., DePasquale M.P., Kartsonis N., Hanna G.J.,
RA
RA
     Wong J., Finzi D., Rosenberg E., Gunthard H.F., Sutton L., Savara A.,
     Petropoulos C.J., Hellmann N., Walker B.D., Richman D.D.,
RA
     Siliciano R., D'Aquila R.T.;
RA
     "Antiretroviral resistance during successful therapy of HIV type 1
RT
RT
     infection.";
     Proc. Natl. Acad. Sci. U.S.A. 97:10948-10953(2000).
RL
     EMBL; AF292846; AAG25476.1; -.
DR
     Polyprotein.
KW
FT
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                          1
SQ
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                11 AA; 1202 MW;
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  Matches
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OS

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7 RKDT 10
Qу
             7 RKDT 10
Db
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AC
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     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
     DJ661I20.2 (Novel helicase C-terminal domain and SNF2 N-terminal
DE
    domains containing protein) (Fragment).
DE
    DJ620E11.1.
GN
OS
    Homo sapiens (Human).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
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RN
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RP
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RA
     Skuce C.;
     Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AL031669; CAC17164.2; -.
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SQ
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Qу
             7 KKE 9
Db
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AC
DΤ
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     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     25 kDa protein P25, peptide F4 (Fragment).
DE
     Bos taurus (Bovine).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
OC
     Bovidae; Bovinae; Bos.
OX
    NCBI TaxID=9913;
RN
    [1]
RP
     SEQUENCE.
    MEDLINE=91372400; PubMed=1909972;
RX
     Takahashi M., Tomizawa K., Ishiguro K., Sato K., Omori A., Sato S.,
RA
     Shiratsuchi A., Uchida T., Imahori K.;
RA
     "A novel brain-specific 25 kDa protein (p25) is phosphorylated by a
RT
```

Ser/Thr-Pro kinase (TPK II) from tau protein kinase fractions.";

```
FT
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                          1
FT
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                  11
                         11
SQ
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  Matches
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                                0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            3 KER 5
Qу
              \Box \Box \Box
            1 KER 3
Db
RESULT 5
Q9R790
ID
     Q9R790
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q9R790;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Outer surface protein C (Fragment).
GN
     OSPC.
OS
     Borrelia garinii.
OC
     Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Borrelia.
OX
     NCBI TaxID=29519;
RN
     [1]
RP
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RC
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RX
     MEDLINE=97426044; PubMed=9282748;
     Tilly K., Casjens S., Stevenson B., Bono J.L., Samuels D.S., Hogan D.,
RA
RA
     Rosa P.;
RT
     "he Borrelia burgdorferi circular plasmid cp26: conservation of
RT
     plasmid structure and targeted inactivation of the ospC gene.";
     Mol. Microbiol. 25:361-374(1997).
RL
     EMBL; U93700; AAC45535.1; -.
DR
     GO; GO:0009279; C:external outer membrane (sensu Gram-negativ. . .; IEA.
DR
DR
     GO; GO:0003793; F:defense/immunity protein activity; IEA.
DR
     GO; GO:0006952; P:defense response; IEA.
DR
     InterPro; IPR001800; Lipoprotein 6.
DR
     Pfam; PF01441; Lipoprotein 6; 1.
FT
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                  11
                         11
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SQ
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Qу
              II
Db
            2 KK 3
RESULT 6
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ID
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                 PRELIMINARY;
                                   PRT;
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AC
     Q9L4F7;
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RL

FEBS Lett. 289:37-43(1991).

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DT
     01-OCT-2000 (TrEMBLrel. 15, Created)
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
DT
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
     Phosphatidylinositol-specific phospholipase C (PI-PLC)
DΕ
DΕ
     (Fragment).
GN
     PLCA.
OS
     Bacillus cereus.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
     NCBI TaxID=1396;
OX
RN
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RP
     STRAIN=ATCC 14579 type strain;
RC
    MEDLINE=20055637; PubMed=10589720;
RX
     Okstad O., Gominet M., Purnelle B., Rose M., Lereclus D., Kolsto A.B.;
RA
     "Sequence analysis of three Bacillus cereus loci under PIcR-regulated
RT
     genes encoding degradative enzymes and enterotoxin.";
RT
    Microbiology 145:3129-3138(1999).
RL
     EMBL; AJ243711; CAB69804.1; -.
DR
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                                                                             0;
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Qу
             4 KK 5
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AC
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     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     REase protein (Fragment).
GN
    REASE.
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
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    NCBI TaxID=562;
OX
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RP
    MEDLINE=91139577; PubMed=1995588;
RX
     Tao T., Bourne J.C., Blumenthal R.M.;
RA
     "A family of regulatory genes associated with type II restriction-
RT
    modification systems.";
RT
     J. Bacteriol. 173:1367-1375(1991).
RL
    EMBL; M63622; AAA24562.1; -.
DR
FT
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3 KE 4
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            5 KE 6
Db
RESULT 8
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     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
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     BX protein (Fragment).
DE
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OS
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OX
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     MEDLINE=95252678; PubMed=7734831;
     Gerlach D., Gunther E., Kohler W., Vettermann S., Fleischer B.,
RA
RA
     Schmidt K.H.;
RT
     "Isolation and characterization of a mitogen characteristic of group A
     streptococci (Streptococcus pyogenes).";
RT
     Int. J. Med. Microbiol. Virol. Parasitol. Infect. Dis. 282:67-
RL
     82 (1995).
RL
SQ
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Qу
              Db
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RESULT 9
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AC
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DT
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     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Cytochrome b6/f complex subunit IV (Fragment).
DΕ
GN
     PETD.
OS
     Prochlorococcus sp.
OC
     Bacteria; Cyanobacteria; Prochlorophytes; Prochlorococcaceae;
OC
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OX
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RP
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RA
     Urbach E., Chisholm S.W.;
RT
     "Genetic diversity in Prochlorococcus populations flow cytometrically
RT
     sorted from the Sargasso Sea and Gulf Stream.";
     Limnol. Oceanog. 43:1615-1630(1998).
RL
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                                                                0; Gaps
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QУ
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AC
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     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
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     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     SM2=NUCLEASE (Fragment).
DE
     Serratia marcescens.
os
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Serratia.
OC
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OX
RN
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RP
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RX
    MEDLINE=92134331; PubMed=1663739;
RA
     Bannikova G.E., Blagova E.V., Dementiev A.A., Morgunova E.Yu.,
RA
     Mikchailov A.M., Shlyapnikov S.V., Varlamov V.P., Vainshtein B.K.;
RT
     "Two isoforms of Serratia marcescens nuclease. Crystallization and
RT
     preliminary X-ray investigation of the enzyme.";
     Biochem. Int. 24:813-822(1991).
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                                                0; Indels
                                                                0; Gaps
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Qу
             1 DT 2
RESULT 11
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
     01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
DT
DE
     Ribosome binding factor A (Fragment).
GN
     RBFA.
os
     Escherichia coli.
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EMBL; AF070132; AAD20740.1; -.

DR

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Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
     Enterobacteriaceae; Escherichia.
OC
OX
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RN
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RP
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RC
    Hedegaard J., Kristensen J.E., Nakamura Y., Sperling-Petersen H.U.,
RA
RA
    Mortensen K.K.;
    "Sequence of the infB gene from Escherichia coli strain IQ489 and
RT
    IQ490.";
RT.
     Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.
RL
DR
    EMBL; AJ132862; CAC20133.1; -.
    NON TER
               11
FT
                        11
    SEQUENCE
               11 AA; 1319 MW; 6B234CFE740879CB CRC64;
SQ
                         18.2%; Score 2; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
           2; Conservative 0; Mismatches
                                                                0; Gaps
                                                                            0;
 Matches
                                                0; Indels
           1 AK 2
Qy
              2 AK 3
Db
RESULT 12
Q8RMI8
ID
    Q8RMI8
                PRELIMINARY;
                                  PRT;
                                          11 AA.
AC
    08RMI8;
DT
     01-JUN-2002 (TrEMBLrel. 21, Created)
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
    ErmB (Fragment).
GN
    ERMB.
OS
    Enterococcus hirae.
OG
    Plasmid pMKH1.
OC
    Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OX
    NCBI TaxID=1354;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Borgen K., Sorum M., Wasteson Y., Kruse H., Oppegaard H.;
RA
RT
     "Genetic linkage between ermB and vanA in Enterococcus hirae of
RT
    poultry origin.";
RL
    Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
    EMBL; AF493942; AAM18554.1; -.
DR
    GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
    Plasmid.
    NON TER
FT
                  1
                         1
    SEOUENCE
               11 AA; 1359 MW; 08A7A8AA49C7273B CRC64;
SO
 Query Match
                         18.2%; Score 2; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches
           2; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           7 RK 8
Qу
              \prod
           10 RK 11
```

OC

```
RESULT 13
O9RBV0
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q9RBV0
AC
     Q9RBV0;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Resolvase (Fragment).
DE
OS
     Pseudomonas sp. R9.
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Pseudomonadaceae; Pseudomonas.
OC
     NCBI TaxID=101164;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=R9; TRANSPOSON=Tn1404;
RC
     MEDLINE=20011227; PubMed=10543801;
RX
     Schnabel E.L., Jones A.L.;
RA
     "Distribution of tetracycline resistance genes and transposons among
RT
     phylloplane bacteria in Michigan apple orchards.";
RT
     Appl. Environ. Microbiol. 65:4898-4907(1999).
RL
     EMBL; AF157800; AAD48002.1; -.
DR
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1307 MW; D00B18E258704416 CRC64;
  Query Match
                          18.2%;
                                  Score 2; DB 2;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
            6 QR 7
Qу
              \mathbf{I}
Db
            4 QR 5
RESULT 14
Q9K332
ID
     Q9K332
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q9K332;
     01-OCT-2000 (TrEMBLrel. 15, Created)
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     Geh (Fragment).
GN
     GEH.
OS
     Staphylococcus aureus.
OC
     Bacteria; Firmicutes; Bacillales; Staphylococcus.
OX
     NCBI TaxID=1280;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=VARIOUS STRAINS;
RX
     MEDLINE=20187516; PubMed=10722640;
RA
     Cramton S.E., Schnell N.F., Gotz F., Bruckner R.;
RT
     "Identification of a new repetitive element in Staphylococcus
     aureus.";
RT
     Infect. Immun. 68:2344-2348(2000).
RL
     EMBL; AF195967; AAF60251.1; -.
DR
     EMBL; AF195963; AAF60243.1; -.
DR
     EMBL; AF195964; AAF60245.1; -.
DR
```

```
DR
    EMBL; AF195966; AAF60249.1; -.
FT
    NON TER
                  1
     SEQUENCE
                11 AA; 1262 MW; 4F978F86AAB1A723 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
                                                                             0;
 Matches
           2; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
            9 DT 10
Qу
             | | |
           7 DT 8
Db
RESULT 15
O9RFZ2
                PRELIMINARY;
                                   PRT;
                                           11 AA.
ΙD
    Q9RFZ2
AC
    01-MAY-2000 (TrEMBLrel. 13, Created)
    01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
    01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
    Fructose biphosphate aldolase (Fragment).
DE
GN
OS
    Mycoplasma mycoides subsp. capri.
    Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma.
OC
    NCBI TaxID=40477;
OX
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=PG3;
    MEDLINE=20193983; PubMed=10727835;
RX
    Thiaucourt F., Lorenzon S., David A., Breard A.;
RA
    "Phylogeny of the Mycoplasma mycoides cluster as shown by sequencing
RT
    of a putative membrane protein gene.";
RT
    Vet. Microbiol. 72:251-268(2000).
RL
DR
    EMBL; AF162998; AAF15255.1; -.
FT
    NON TER
                 11
                         11
     SEQUENCE
                11 AA; 1371 MW; 50B0881A3331FB57 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            2 KK 3
Qу
             \Box
           7 KK 8
RESULT 16
P95518
                                   PRT;
                                           11 AA.
ID
     P95518
                 PRELIMINARY;
AC
     P95518;
     01-MAY-1997 (TrEMBLrel. 03, Created)
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
    Ribosomal protein RpsA (Fragment).
DE
    RPSA.
GN
    Pasteurella haemolytica.
OS
```

DR

EMBL; AF195965; AAF60247.1; -.

```
Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
OC
OC
     Pasteurellaceae; Mannheimia.
    NCBI TaxID=75985;
OX
RN
     [1]
    SEQUENCE FROM N.A.
RP
    STRAIN=PHL101;
RC
RX
    MEDLINE=97164347; PubMed=9011038;
    Highlander S.K., Garza O., Brown B.J., Koby S., Oppenheim A.B.;
RA
    "Isolation and characterization of the integration host factor genes
RT
    of Pasteurella haemolytica.";
RT
    FEMS Microbiol. Lett. 146:181-188(1997).
RL
    EMBL; U56139; AAC44845.1; -.
DR
    NON TER
                          1
FT
                   1
                11 AA; 1168 MW; 7A4BFD38D339CDDB CRC64;
    SEQUENCE
SQ
 Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
 Matches
           2; Conservative
            1 AK 2
Qу
              | \cdot |
            8 AK 9
Db
RESULT 17
Q47420
ID
    Q47420
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
    047420;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
    ORF11 protein.
OS
    Escherichia coli.
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
    Enterobacteriaceae; Escherichia.
OX
    NCBI TaxID=562;
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=K12;
    MEDLINE=92041688; PubMed=1657895;
RX
RA
     Sharples G.J., Lloyd R.G.;
     "Resolution of Holliday junctions in Escherichia coli: Identification
RT
    of the ruvC gene product as a 19-Kilodalton protein.";
RT
    J. Bacteriol. 173:7711-7715(1991).
RL
    EMBL; X59551; CAA42127.1; -.
DR
DR
    PIR; S19015; S19015.
              11 AA; 1215 MW; DD8D6D4D56C6D33D CRC64;
    SEQUENCE
SQ
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                              0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            2; Conservative
            1 AK 2
Qу
              \mathbf{H}
Db
            4 AK 5
```

```
RESULT 18
Q44090
ΙD
     Q44090
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     044090;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Hypothetical export segment (Fragment).
DE
OS
     Acholeplasma laidlawii.
     Bacteria; Firmicutes; Mollicutes; Acholeplasmatales;
OC
OC
     Acholeplasmataceae; Acholeplasma.
OX
     NCBI TaxID=2148;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=A-EF22;
RC
RA
     Boyer M.J., Jarhede T.K., Tegman V., Wieslander A.;
     "Sequence regions from Acholeplasma laidlawii which restore export of
RT
     beta-lactamase in Escherichia coli.";
RT
     Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; Z22875; CAA80495.1; -.
DR
     PIR; S33519; S33519.
DR
     NON TER
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1234 MW; 5C9D2AE8A682C337 CRC64;
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0:
            2 KK 3
Qу
              Db
            2 KK 3
RESULT 19
Q56413
ID
     Q56413
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     056413;
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     IS602L region DNA, 5' end (Fragment).
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OX
     NCBI TaxID=562;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     TRANSPOSON=Transposon Tn602;
     MEDLINE=87318208; PubMed=2819910;
RX
RA
     Stibitz S., Davies J.E.;
RT
     "Tn602: A naturally occurring relative of Tn903 with direct repeats.";
RL
     Plasmid 17:202-209(1987).
     EMBL; M22735; AAA27464.1; -.
DR
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                       1361 MW; 447E8354A05339C3 CRC64;
```

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18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AK 2
Qу
              \mathbf{I}
            1 AK 2
RESULT 20
Q9R446
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ID
     Q9R446
AC
     09R446;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Carbamoyl-phosphate synthase subunit A (Fragment).
DE
GN
     CARA.
OS
     Neisseria gonorrhoeae.
     Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
OC
     Neisseriaceae; Neisseria.
OC
OX
     NCBI TaxID=485;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=MS11, and FA1090;
     MEDLINE=95291461; PubMed=7773412;
RX
     Lawson F.S., Billowes F.M., Dillon J.A.;
RA
RT
     "Organization of carbamoyl-phosphate synthase genes in Neisseria
     gonorrhoeae includes a large, variable intergenic sequence which is
RT
     also present in other Neisseria species.";
RT
RL
     Microbiology 141:0-0(0).
RN
     [2]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=MS11, and FA1090;
RA
     Brinkman F.S.L., Francis F.M., Dillon J.R.;
RT
     "Complexity of the variable sequence between the carbamoyl-phosphate
RT
     synthase genes of Neisseria species.";
     Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF029363; AAC78453.1; -.
DR
DR
     EMBL; AF029362; AAC78452.1; -.
     NON TER
FT
                   1
                          1
     SEQUENCE
                11 AA; 1178 MW; 0C07A8E3DDD33694 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
             2; Conservative
                                                  0; Indels
Qу
            1 AK 2
              Db
            8 AK 9
RESULT 21
Q91UY9
ID
     Q91UY9
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q91UY9;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
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Query Match

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DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
     Insertion site for insertion element IS903.B, upstream of kanamycin
DE
     resistance gene (Fragment).
DE
OS
     Escherichia coli.
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     TRANSPOSON=Tn2680;
     MEDLINE=85234397; PubMed=2989253;
RX
     Mollet B., Clerget M., Meyer J., Iida S.;
RA
     "Organization of the Tn6-related kanamycin resistance transposon
RT
     Tn2680 carrying two copies of IS26 and an IS903 variant, IS903.B.";
RT
     J. Bacteriol. 163:55-60(1985).
RL
     EMBL; M11420; AAA27427.1; -.
DR
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA; 1278 MW; 03902598AB0416D0 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            6 QR 7
             \Box
            5 OR 6
Db
RESULT 22
Q8GMU3
ID
     Q8GMU3
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q8GMU3;
DT
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Putative catalase isozyme (Fragment).
GN
     KATA.
OS
     Acinetobacter lwoffii.
     Plasmid pKLH202.
OG
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
     Moraxellaceae; Acinetobacter.
OX
     NCBI TaxID=28090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=TC108;
RA
     Kholodii G.Y., Yurieva O.V., Mindlin S.Z., Gorlenko Z.M.,
RA
     Nikiforov V.G.;
RT
     "pKLH2-like aberrant transposons and possible mechanisms of their
RT
     dissemination.";
RL
     Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AJ250245; CAC80800.1; -.
DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
KW
     Plasmid.
     NON TER
FT
                  11
                         11
     SEQUENCE
SQ
                11 AA;
                        1233 MW; 81A15757B333276A CRC64;
```

```
Query Match
                          18.2%; Score 2; DB 2; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches
            2; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            2 KK 3
Qγ
              11
            6 KK 7
Db
RESULT 23
Q9UR95
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
     Q9UR95
ID
AC
     Q9UR95;
    01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DΨ
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DT
     Heat shock protein 60 homolog (Fragment).
DE
OS
     Pichia angusta (Yeast) (Hansenula polymorpha).
    Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Pichia.
OC
OX
     NCBI TaxID=4905;
RN
     [1]
RP
     SEQUENCE.
RX
    MEDLINE=93223840; PubMed=8096822;
RA
     Evers M.E., Huhse B., Titorenko V.I., Kunau W.H., Hartl F.U.,
RA
    Harder W., Veenhuis M.;
     "Affinity purification of molecular chaperones of the yeast Hansenula
RT
     polymorpha using immobilized denatured alcohol oxidase.";
RT
     FEBS Lett. 321:32-36(1993).
RL
     SEQUENCE 11 AA; 1230 MW;
                                 71872C1779C3372B CRC64;
SQ
 Query Match
                          18.2%; Score 2; DB 3; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                              0; Mismatches 0; Indels
                                                                 0;
                                                                             0;
 Matches
            2; Conservative
                                                                     Gaps
            3 KE 4
Qу
              11
            3 KE 4
Db
RESULT 24
Q9HFN8
ID
    Q9HFN8
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     O9HFN8:
DT
     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
     Acyl carrier protein (Fragment).
GN
OS
     Candida rugosa (Yeast) (Candida cylindracea).
OC
     Eukaryota; Funqi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; mitosporic Saccharomycetales; Candida.
OX
     NCBI TaxID=5481;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Biasio W.;
     Thesis (2000), University of Vienna, Austria.
RL
```

```
FT
     NON TER
                  1
                          1
     SEQUENCE
SQ
                11 AA; 1274 MW; D2E4CC3976C40732 CRC64;
  Query Match
                          18.2%; Score 2; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                0; Mismatches
                                                                              0;
 Matches
             2; Conservative
                                                 0; Indels
                                                                  0; Gaps
            5 RQ 6
Qy
              \mathbf{H}
            6 RQ 7
RESULT 25
014759
ID
     014759
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q14759;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Lymphocyte cytosolic protein 2 (Fragment).
DE
GN
     LCP2.
     Homo sapiens (Human).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
    NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Sunden S.L.F., Carr L.L., Clements J.L, Motto D.G., Koretzky G.A.;
RT
     "Polymorphism in and localization of the gene encoding the 76 kDa SH2
     domain-containing Leukocyte Protein (SLP-76) to chromosome 5q33.1-
RT
     qter.";
RT
     Genomics 0:0-0(1995).
RL
DR
     EMBL; U44065; AAA93308.1; -.
    NON TER
FT
                   1
                          1
     NON TER
FT
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1242 MW; D695104224072DDD CRC64;
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
 Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            7 RK 8
Qy
              \Box
Db
            7 RK 8
RESULT 26
016427
ID
    Q16427
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q16427;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
DT
DE
     Dystrophin protein (Fragment).
GN
     DYSTROPHIN.
OS
     Homo sapiens (Human).
```

EMBL; AJ279021; CAC08812.1; -.

DR

```
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=96163501; PubMed=8566960;
RX
     Holder E., Maeda M., Bies R.D.;
RA
RT
     "Expression and regulation of the dystrophin Purkinje promoter in
     human skeletal muscle, heart, and brain.";
RT
RL
     Hum. Genet. 97:232-239(1996).
     EMBL; S81419; AAD14362.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                        1299 MW; DDCC84321AB5A5A2 CRC64;
SQ
                11 AA;
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
  Matches
             2; Conservative
                                                    0; Indels
                                                                              0;
                                                                  0;
                                                                      Gaps
            4 ER 5
Qу
              11
            8 ER 9
Db
RESULT 27
060761
                                   PRT;
ID
     060761
                 PRELIMINARY;
                                            11 AA.
     060761;
AC
DT
     01-AUG-1998 (TrEMBLrel. 07, Created)
DT
     01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     NPT-1 protein (Fragment).
GN
     NPT-1.
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI_TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=98207718; PubMed=9545579;
RA
     Taketani Y., Miyamoto K., Chikamori M., Tanaka K., Yamamoto H.,
RA
     Tatsumi S., Morita K., Takeda E.;
     "Characterization of the 5' flanking region of the human NPT-1
RT
RT
     Na+/phosphate cotransporter gene.";
RL
     Biochim. Biophys. Acta 1396:267-272(1998).
     EMBL; D83236; BAA25645.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA;
SQ
                       1358 MW; 884E2D4E6734044A CRC64;
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
Qу
            2 KK 3
              II
           10 KK 11
Db
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RESULT 28
094785
     094785
ID
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     094785;
DT
     01-MAY-1999 (TrEMBLrel. 10, Created)
     01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT
     01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
DT
DΕ
     Thrombopoietin (Fragment).
     Homo sapiens (Human).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
     SEOUENCE FROM N.A.
RP
     Sasaki Y., Takahashi T., Nakamura K., Okuno Y., Nakao K.;
RA
     "Production of Thrombopoietin by Human Carcinomas and Its Novel mRNA
RT
RT
     Isoforms.";
     Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AB014683; BAA34932.1; -.
FT
     NON TER
                   1
                          1
                11 AA; 1203 MW;
     SEQUENCE
SQ
                                  5FE19F44B6C1A877 CRC64;
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           10 TQ 11
Qy
              6 TQ 7
Db
RESULT 29
Q8NI03
ΙD
     Q8NI03
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q8NI03;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
     25 hydroxyvitamin d3 1-alpha hydroxylase (Fragment).
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Ebert R., Schneider D., Jovanovic M., Adamski J., Jakob F.;
RA
RL
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF500480; AAM21669.1; -.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1298 MW; 82C14E84CB533731 CRC64;
  Query Match
                          18.2%;
                                  Score 2; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
           10 TQ 11
```

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RESULT 30
Q9UAR8
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ID
    Q9UAR8
     Q9UAR8;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DТ
     Sialokinin I preproprotein (Fragment).
DΕ
     Aedes aegypti (Yellowfever mosquito).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes.
OC
     NCBI TaxID=7159;
OX
RN
RP
     SEQUENCE FROM N.A.
     STRAIN=Rockefeller/Red; TISSUE=Salivary gland;
RC
     MEDLINE=20099025; PubMed=10620041;
RX
     Beerntsen B.T., Champagne D.E., Coleman J.L., Campos Y.A., James A.A.;
RA
     "Characterization of the Sialokinin I gene encoding the salivary
RT
     vasodilator of the yellow fever mosquito, Aedes aegypti.";
RT
RL
     Insect Mol. Biol. 8:459-467(1999).
     EMBL; AF108100; AAD16884.1; -.
DR
     GO; GO:0007268; P:synaptic transmission; IEA.
DR
     GO; GO:0007217; P:tachykinin signaling pathway; IEA.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     NON TER
FT
                   1
                       1203 MW; 8BADC77C6B59C33A CRC64;
SQ
     SEQUENCE 11 AA;
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
  Matches
             2; Conservative
            9 DT 10
Qу
              1 DT 2
Db
RESULT 31
O9TWX6
     O9TWX6
                 PRELIMINARY:
                                    PRT;
                                            11 AA.
ΙD
     O9TWX6;
AC
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DE
     Juvenile hormone binding protein, JHBP=12.5 kDa CNBR peptide
DE
     (Fragment).
     Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea;
OC
     Sphingidae; Sphinginae; Manduca.
OX
     NCBI_TaxID=7130;
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=92134256; PubMed=1734862;
RX
```

```
RA
     Touhara K., Prestwich G.D.;
RT
     "Binding site mapping of a photoaffinity-labeled juvenile hormone
RT
     binding protein.";
     Biochem. Biophys. Res. Commun. 182:466-473(1992).
RL
     NON TER
                         1
FT
                  1
     NON TER
FT
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                       1071 MW; D232A98E705045BD CRC64;
                          18.2%; Score 2; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AK 2
Qу
              10 AK 11
Db
RESULT 32
099292
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ΙD
    Q99292
AC
     Q99292;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DΕ
     Bicoid protein (Fragment).
GN
     BCD.
OS
     Drosophila heteroneura (Fruit fly).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
    Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC
     Ephydroidea; Drosophilidae; Drosophila.
OX
    NCBI TaxID=32382;
RN
     [1]
RP
     SEQUENCE FROM N.A.
    MEDLINE=91184004; PubMed=2081457;
RX
RA
    MacDonald P.M.;
RT
     "bicoid mRNA localization signal: phylogenetic conservation of
RT
     function and RNA secondary structure.";
RL
     Development 110:161-171(1990).
CC
     -!- FUNCTION: BICOID IS SEGMENT-POLARITY PROTEIN THAT PROVIDES
CC
         POSITIONAL CUES FOR THE DEVELOPMENT OF HEAD AND THORACIC SEGMENTS.
CC
         BCD REGULATES THE EXPRESSION OF ZYGOTIC GENES, POSSIBLY THROUGH
         ITS HOMEODOMAIN, AND INHIBITS THE ACTIVITY OF OTHER MATERNAL GENE
CC
         PRODUCTS. IT IS POSSIBLE THAT BCD ALSO BINDS RNA.
CC
DR
     EMBL; M32125; AAA28386.1; -.
     FlyBase; FBqn0012352; Dhet\bcd.
DR
     GO; GO:0005634; C:nucleus; IEA.
DR
     GO; GO:0003677; F:DNA binding; IEA.
DR
     GO; GO:0003723; F:RNA binding; IEA.
DR
     GO; GO:0007275; P:development; IEA.
DR
DR
     GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
DR
     GO; GO:0007367; P:segment polarity determination; IEA.
     DNA-binding; Developmental protein; Homeobox; Nuclear protein;
KW
     RNA-binding; Segmentation polarity protein; Transcription regulation.
KW
FT
     NON TER
                   1
                          1
                11 AA; 1221 MW; 8CE802305DD9D6C1 CRC64;
     SEQUENCE
SQ
                          18.2%;
                                  Score 2; DB 5; Length 11;
 Query Match
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Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches
             2; Conservative 0; Mismatches 0;
                                                                   0; Gaps
                                                        Indels
                                                                                0;
           10 TO 11
Qу
              4 TQ 5
Db
RESULT 33
08MM58
     Q8MM58
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q8MM58;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
DT 01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Mannose phosphate isomerase (Fragment).
GN
     MPI.
     Heliconius cydno chioneus.
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
     Papilionoidea; Nymphalidae; Heliconiinae; Heliconius.
OC
     NCBI TaxID=171915;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=STRI-B-553-Mpi-1, and STRI-B-553-Mpi-2;
RA
     Bull V., Beltran M., Bermingham E., Jiggins C., McMillan O.,
RA
RT
     "Molecular evidence for gene flow between species of Heliconius.";
RL
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
     EMBL; AF516222; AAM61908.1; -.
DR
DR
     EMBL; AF516223; AAM61909.1; -.
DR
     GO; GO:0016853; F:isomerase activity; IEA.
KW
     Isomerase.
FT
     NON TER
                   1
                          1
     NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1312 MW; 56A67DB31DD1EAA3 CRC64;
                          18.2%; Score 2; DB 5; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches
            2; Conservative 0; Mismatches 0; Indels
                                                                   0; Gaps
            8 KD 9
Qу
              -11
            4 KD 5
Db
RESULT 34
Q86D32
ID
     Q86D32
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
AC
     Q86D32;
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Histone H1 (Fragment).
     Trypanosoma cruzi.
OS
OC
     Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OX
     NCBI TaxID=5693;
```

```
SEQUENCE FROM N.A.
RP
RC
     STRAIN=Dm28c;
     MEDLINE=22557728; PubMed=12670512;
RX
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
RA
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
RT
     Int. J. Parasitol. 33:269-279(2003).
RL
     EMBL; AF545075; AAP21903.1; -.
DR
    NON TER
FT
                11
                        11
     SEQUENCE
               11 AA; 1114 MW; CCC1B31E7772CDDD CRC64;
SQ
                         18.2%; Score 2; DB 5; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
            2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           2 KK 3
Qу
             11
           9 KK 10
Db
RESULT 35
Q86D31
                                  PRT;
ID
    Q86D31
                PRELIMINARY;
                                           11 AA.
AC
    Q86D31;
DT
    01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
    Histone H1 (Fragment).
OS
    Trypanosoma cruzi.
OC
    Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
OX
    NCBI TaxID=5693;
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=Sylvio X10;
    MEDLINE=22557728; PubMed=12670512;
RX
RA
     Sturm N.R., Vargas N.S., Westenberger S.J., Zingales B.,
RA
     Campbell D.A.;
RT
     "Evidence for multiple hybrid groups in Trypanosoma cruzi.";
     Int. J. Parasitol. 33:269-279(2003).
RL'
DR
     EMBL; AF545076; AAP21906.1; -.
FT
    NON TER
                 11
                        11
    SEQUENCE
               11 AA; 1174 MW; CCD1B21E7772CDDD CRC64;
SQ
 Query Match
                         18.2%; Score 2; DB 5; Length 11;
 Best Local Similarity 100.0%; Pred. No. 1e+05;
          2; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
 Matches
                                                                             0;
           2 KK 3
QУ
              11
           9 KK 10
Db
RESULT 36
Q95PX6
ID
    Q95PX6
                PRELIMINARY;
                              PRT;
                                          11 AA.
AC
    Q95PX6;
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RN

[1]

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01-DEC-2001 (TrEMBLrel. 19, Created)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
     Hypothetical protein.
GN
     ZK1236.8.
     Caenorhabditis elegans.
OS
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
OX
    NCBI TaxID=6239;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Bristol N2;
    MEDLINE=99069613; PubMed=9851916;
RX
RA
     "Genome sequence of the nematode C. elegans: a platform for
RT
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
     [2]
RP
     SEQUENCE FROM N.A.
     STRAIN=Bristol N2:
RC
     Favello A.;
RA
     "The sequence of C. elegans cosmid ZK1236.";
RT
     Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
RL
RN
     [3]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=Bristol N2;
RA
    Waterston R.;
RT
     "Direct Submission.";
RL
     Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
DR
    EMBL; L13200; AAL11108.1; -.
DR
    WormPep; ZK1236.8; CE29629.
KW
    Hypothetical protein.
     SEQUENCE
              11 AA; 1304 MW; DFA3510A25A76322 CRC64;
SO
                          18.2%; Score 2; DB 5; Length 11;
 Query Match
 Best Local Similarity
                          100.0%; Pred. No. 1e+05;
 Matches
            2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            2 KK 3
Qу
              \mathbf{H}
            8 KK 9
RESULT 37
Q9UEX7
ID
    O9UEX7
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q9UEX7;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
    Human leucocyte antigen B (Fragment).
DE
    HLA-A*03.
GN
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
    NCBI TaxID=9606;
RN
     [1]
```

```
Fae I., Kriks D., Cernava B., Fischer G.F.;
RA
RT
     "An novel HLA-A*03 allele.";
     Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ252283; CAB65736.1; -.
DR
     NON TER
FT
                  1
                         1
     NON TER
                 11
FT
                        11
     SEQUENCE
               11 AA; 1118 MW; 5191BC69C1A72DD7 CRC64;
SQ
                         18.2%; Score 2; DB 7; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 1e+05;
           2; Conservative 0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
          10 TQ 11
Qу
             7 TQ 8
Db
RESULT 38
077911
ID
    077911
                PRELIMINARY;
                                  PRT;
                                          11 AA.
AC
     077911;
DT
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
    MHC class II B locus 3 (Fragment).
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
OC
    Cichlidae; Oreochromis.
    NCBI_TaxID=8128;
OX
RN
     [1]
RP
    SEQUENCE FROM N.A.
RX
    MEDLINE=98315113; PubMed=9649539;
RA
    Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RT
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RL
     Genetics 149:1527-1537(1998).
DR
     EMBL; AF050022; AAC41361.1; -.
     NON TER
FT
                         1
                 1
\mathbf{FT}
     NON TER
                 11
                        11
SO
     SEQUENCE 11 AA; 1401 MW; 74342D9002D41B5B CRC64;
                         18.2%; Score 2; DB 7; Length 11;
 Query Match
                         100.0%; Pred. No. 1e+05;
 Best Local Similarity
                                                                0; Gaps
 Matches
            2; Conservative
                              0; Mismatches 0; Indels
Qу
            4 ER 5
             \Box
            8 ER 9
RESULT 39
Q8MEL7
                                          11 AA.
ID Q8MEL7
                PRELIMINARY;
                             PRT;
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SEQUENCE FROM N.A.

RP

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O8MEL7;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DΕ
GN
     RPL16.
os
     Sida hookeriana.
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Sida.
OC
     NCBI TaxID=108446;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384624; AAM50396.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
FT
     NON_TER
                   1
                          1
FT
     NON TER
                  11
                         11
                11 AA; 1470 MW;
     SEQUENCE
                                  7227C351D32409D4 CRC64;
SQ
                                  Score 2; DB 8;
  Query Match
                          18.2%;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
            7 RK 8
Qу
              11
            6 RK 7
Db
RESULT 40
Q8MAZ1
ID
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
     Q8MAZ1
AC
     Q8MAZ1;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     PsbJ (Fragment).
GN
     PSBJ.
OS
     Maripa paniculata.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
OC
     lamiids; Solanales; Convolvulaceae; Maripa.
OX
     NCBI TaxID=197411;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Stefanovic S., Krueger L., Olmstead R.G.;
     "Monophyly of the Convolvulaceae and circumscription of their major
RT
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
RL
     Am. J. Bot. 0:0-0(2002).
     EMBL; AY100937; AAM55869.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
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NON TER
FT
                   11
                          11
SQ
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  Query Match
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                           100.0%; Pred. No. 1e+05;
  Best Local Similarity
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                                                        Indels
                                                                    0; Gaps
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                                                     0;
            .9 DT 10
Qy
              3 DT 4
Db
RESULT 41
08MB39
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                                    PRT;
                                             11 AA.
     Q8MB39
ID
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AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     PsbJ (Fragment).
     PSBJ.
GN
OS
     Wilsonia humilis.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Convolvulaceae; Wilsonia.
OX
     NCBI TaxID=197481;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Stefanovic S., Krueger L., Olmstead R.G.;
RT
     "Monophyly of the Convolvulaceae and circumscription of their major
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
     Am. J. Bot. 0:0-0(2002).
RL
DR
     EMBL; AY100914; AAM55777.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
     NON TER
FT
                   11
                          11
     SEQUENCE
SQ
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  Query Match
                           18.2%; Score 2; DB 8; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1e+05;
             2; Conservative
                                 0; Mismatches
                                                                    0;
                                                                                 0;
  Matches
                                                     0; Indels
                                                                        Gaps
            9 DT 10
Qу
              II
Db
            3 DT 4
RESULT 42
Q8MEM2
ID
     Q8MEM2
                  PRELIMINARY;
                                    PRT;
                                             11 AA.
AC
     Q8MEM2;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DT
DE
     Ribosomal protein 16 (Fragment).
```

KW

Chloroplast.

```
GN
OS
     Lagunaria patersonia.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Lagunaria.
OC
OX
     NCBI TaxID=183274;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
RL
     Syst. Bot. 27:333-350(2002).
DR
     EMBL; AF384616; AAM50388.1; -.
     GO; GO:0009507; C:chloroplast; IEA.
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     NON TER
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                          1
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     NON TER
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                         11
FT
     SEQUENCE
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SQ
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                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
  Matches
             2; Conservative
                                 0; Mismatches
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            7 RK 8
Qу
              \mathbf{I}
            6 RK 7
Db
RESULT 43
Q8MB58
ID
     Q8MB58
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q8MB58;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     PsbJ (Fragment).
GN
     PSBJ.
OS
     Seddera hirsuta.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Convolvulaceae; Seddera.
OC
OX
     NCBI TaxID=197444;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Stefanovic S., Krueger L., Olmstead R.G.;
RT
     "Monophyly of the Convolvulaceae and circumscription of their major
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
RL
     Am. J. Bot. 0:0-0(2002).
DR
     EMBL; AY100905; AAM55743.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
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     NON TER
FT
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                         11
SQ
     SEQUENCE
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                        1260 MW;
                                   93736D59440861B1 CRC64;
  Query Match
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RPL16.

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Best Local Similarity
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                Conservative
                                 0; Mismatches
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                                                                               0;
                                                        Indels
                                                                      Gaps
            9 DT 10
Qу
              | |
            3 DT 4
Db
RESULT 44
Q8MAZ3
                                            11 AA.
ID
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                                   PRT;
     Q8MAZ3;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DΤ
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DТ
DE
     PsbJ (Fragment).
GN
     PSBJ.
OS
     Maripa repens.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Convolvulaceae; Maripa.
OC
OX
     NCBI TaxID=197412;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Stefanovic S., Krueger L., Olmstead R.G.;
RA
RT
     "Monophyly of the Convolvulaceae and circumscription of their major
RT
     lineages based on DNA sequences of multiple chloroplast loci.";
     Am. J. Bot. 0:0-0(2002).
RL
     EMBL; AY100936; AAM55865.1; -.
DR
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1260 MW;
                                  93736D59440861B1 CRC64;
  Query Match
                          18.2%;
                                  Score 2; DB 8;
                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                              0;
                                0; Mismatches
 Matches
             2; Conservative
                                                    0; Indels
                                                                  0;
                                                                      Gaps
Qy
            9 DT 10
              11
            3 DT 4
Db
RESULT 45
O8MES5
                 PRELIMINARY;
ID
     O8MES5
                                   PRT;
                                            11 AA.
AC
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DΤ
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Abelmoschus manihot.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
```

```
eurosids II; Malvales; Malvaceae; Malvoideae; Abelmoschus.
OC
OX
     NCBI TaxID=183220;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
RL
     Syst. Bot. 27:333-350(2002).
     EMBL; AF384561; AAM50399.1; -.
DR
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DR
KW
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     NON TER
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FT
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                  11
                         11
FT
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     SEQUENCE
SQ
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  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            2; Conservative
            7 RK 8
Qу
              11
            6 RK 7
Db
RESULT 46
Q8MEP0
ID
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                                   PRT;
                                           11 AA.
AC
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DT
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DΤ
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
    Hibiscus peralbus.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OX
     NCBI TaxID=183256;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
RL
     Syst. Bot. 27:333-350(2002).
     EMBL; AF384598; AAM50370.1; -.
DR
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DR
KW
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FT
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                          1
     NON TER
FT
                  11
                         11
                11 AA; 1470 MW;
     SEQUENCE
                                  7227C351D32409D4 CRC64;
SQ
  Query Match
                          18.2%;
                                  Score 2; DB 8; Length 11;
Best Local Similarity
                          100.0%; Pred. No. 1e+05;
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             2; Conservative
                                0; Mismatches
                                                                  0; Gaps
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Db 6 RK 7
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RESULT 47
Q8MES1
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                                            11 AA.
ID
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     Q8MES1;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
     Ribosomal protein 16 (Fragment).
DE
     RPL16.
GN
OS
     Alyoqyne pinoniana.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Alyogyne.
OC
OX
     NCBI TaxID=183226;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384566; AAM50404.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
FT
     NON TER
                   1
                          1
     NON TER
                  11
                          11
FT
SQ
     SEQUENCE
                11 AA; 1470 MW; 7227C351D32409D4 CRC64;
  Query Match
                           18.2%; Score 2; DB 8;
                                                    Length 11;
  Best Local Similarity
                           100.0%;
                                   Pred. No. 1e+05;
                                                                               0;
                                                                   0;
  Matches
             2;
                Conservative
                                  0; Mismatches
                                                    0;
                                                       Indels
                                                                       Gaps
            7 RK 8
Qу
              11
            6 RK 7
Db
RESULT 48
O8MEP3
                                            11 AA.
ID
     O8MEP3
                 PRELIMINARY;
                                    PRT;
AC
     O8MEP3;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Hibiscus normanii.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
     NCBI TaxID=183253;
RN
     [1]
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SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RΆ
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384595; AAM50367.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
     Chloroplast.
KW
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FT
     NON TER
                          1
     NON TER
                  11
                         11
FT
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                        1470 MW;
     SEQUENCE
                11 AA;
SQ
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  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
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                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                       Gaps
                Conservative
  Matches
             2;
            7 RK 8
Qу
              11
            6 RK 7
Db
RESULT 49
Q8MBE1
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                                    PRT;
                                            11 AA.
ΙD
     Q8MBE1
AC
     O8MBE1;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     PsbJ (Fragment).
DE
     PSBJ.
GN
OS
     Ipomoea alba.
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Convolvulaceae; Ipomoea.
OC
     NCBI TaxID=89634;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Stefanovic S., Krueger L., Olmstead R.G.;
RA
     "Monophyly of the Convolvulaceae and circumscription of their major
RT
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
     Am. J. Bot. 0:0-0(2002).
RL
     EMBL; AY100861; AAM55568.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
     Chloroplast.
ΚW
     NON TER
                          11
FT
                   11
                                   93736D59440861B1 CRC64;
     SEQUENCE
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                        1260 MW;
SO
                           18.2%;
  Query Match
                                   Score 2; DB 8; Length 11;
                           100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                    0; Indels
                                                                   0;
                                                                               0;
                                  0; Mismatches
                                                                       Gaps
  Matches
             2; Conservative
            9 DT 10
Qу
               11
Db
            3 DT 4
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RESULT 50
Q8MEQ7
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                                   PRT;
                                           11 AA.
ID
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     Q8MEQ7;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DΕ
GN
     RPL16.
     Hibiscus drummondii.
os
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
     NCBI TaxID=183239;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
DR
     EMBL; AF384581; AAM50353.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
     NON TER
                   1
                          1
FT
     NON TER
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                         11
FT
     SEQUENCE
                11 AA; 1470 MW; 7227C351D32409D4 CRC64;
SQ
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                               0:
             2; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            7 RK 8
Qу
              6 RK 7.
RESULT 51
Q35374
ID
     Q35374
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     035374;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
DE
     Pl protein (Fragment).
     Paramecium tetraurelia.
OS
OG
     Mitochondrion.
     Eukaryota; Alveolata; Ciliophora; Oligohymenophorea; Peniculida;
OC
OC
     Paramecium.
OX
     NCBI TaxID=5888;
RN
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=stock 172;
     MEDLINE=87055241; PubMed=3023187;
RX
     Pritchard A.E., Seilhamer J.J., Cummings D.J.;
RA
     "Paramecium mitochondrial DNA sequences and RNA transcripts for
RT
     cytochrome oxidase subunit I, URF1, and three ORFs adjacent to the
RT
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Gene 44:243-253(1986).
RL
     EMBL; M15280; AAA79267.1; -.
DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
     Mitochondrion.
ΚŴ
     NON TER
                  11
                         11
FT
                11 AA; 1266 MW;
                                  1D84259D16D046D4 CRC64;
     SEQUENCE
SO
                           18.2%; Score 2; DB 8; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                   0; Gaps
             2; Conservative
                                0; Mismatches
  Matches
            6 OR 7
Qy
              \mathbf{I}
            7 QR 8
Db
RESULT 52
Q8MEL9
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q8MEL9
AC
     Q8MEL9;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
os
     Pavonia hastata.
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Pavonia.
OC
     NCBI TaxID=183278;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
DR
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DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
     NON TER
                    1
                           1
FT
FT
     NON TER
                  11
                          11
                                   7227C351D32409D4 CRC64;
SO
     SEQUENCE
                11 AA; 1470 MW;
                           18.2%; Score 2; DB 8; Length 11;
  Query Match
                           100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                                0;
             2; Conservative
                                                                   0; Gaps
  Matches
                                 0; Mismatches
                                                    0; Indels
Qy
            7 RK 8
               \Pi
Db
            6 RK 7
RESULT 53
Q8MB77
                                    PRT;
                                            11 AA.
                 PRELIMINARY;
     Q8MB77
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replication origin.";

RT

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AC
     08MB77;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     PsbJ (Fragment).
DΕ
     PSBJ.
GN
     Odonellia hirtiflora.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Convolvulaceae; Odonellia.
OC
     NCBI TaxID=197424;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Stefanovic S., Krueger L., Olmstead R.G.;
RA
     "Monophyly of the Convolvulaceae and circumscription of their major
RT
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
     Am. J. Bot. 0:0-0(2002).
RL
     EMBL; AY100897; AAM55711.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
FT
     NON TER
                  11
                         11
                                  93736D59440861B1 CRC64;
SQ
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                11 AA;
                        1260 MW;
                          18.2%; Score 2; DB 8; Length 11;
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                               0; Mismatches
                                                                   0;
                                                                       Gaps
            9 DT 10
Qу
              \mathbf{I}
Db
            3 DT 4
RESULT 54
Q8MER0
ID
     Q8MER0
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                                    PRT;
                                            11 AA.
AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
     RPL16.
GN
     Hibiscus coatesii.
OS
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
     NCBI TaxID=183236;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384578; AAM50416.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
```

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NON TER
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FT
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SO
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  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
             2; Conservative
            7 RK 8
Qv
              11
            6 RK 7
Db
RESULT 55
Q8MES3
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
ΙD
     Q8MES3
AC
     O8MES3;
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Alyogyne cravenii.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Alyogyne.
OX
     NCBI TaxID=183223;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
DR
     EMBL; AF384563; AAM50401.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
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     NON TER
FT
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                          1
     NON TER
FT
                  11
                         11
                       1470 MW;
                                  7227C351D32409D4 CRC64;
SQ
     SEQUENCE
                11 AA;
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
                               0; Mismatches
                                                    0; Indels
  Matches
             2: Conservative
            7 RK 8
Qy
              11
            6 RK 7
Db
RESULT 56
08MB79
                                            11 AA.
ID
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                 PRELIMINARY;
                                    PRT:
АC
     Q8MB79;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
```

FT

NON TER

1

1

```
PsbJ (Fragment).
DE
     PSBJ.
GN
     Aniseia argentina.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Convolvulaceae; Aniseia.
OC
     NCBI TaxID=197349;
OX
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RN
     SEQUENCE FROM N.A.
RP
     Stefanovic S., Krueger L., Olmstead R.G.;
RA
     "Monophyly of the Convolvulaceae and circumscription of their major
RT
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
     Am. J. Bot. 0:0-0(2002).
RL
     EMBL; AY100895; AAM55703.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
FT
     NON TER
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                         11
                11 AA; 1260 MW; 93736D59440861B1 CRC64;
     SEQUENCE
SQ
  Query Match
                          18.2%; Score 2; DB 8; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                                               0;
             2; Conservative
                                  0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
            9 DT 10
Qу
              11
            3 DT 4
Db
RESULT 57
Q8MB97
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
     Q8MB97
AC
     Q8MB97;
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
DE
     PsbJ (Fragment).
     PSBJ.
GN
     Merremia peltata.
OS
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
OC
     lamiids; Solanales; Convolvulaceae; Merremia.
OX
     NCBI TaxID=197416;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Stefanovic S., Krueger L., Olmstead R.G.;
RA
RT
     "Monophyly of the Convolvulaceae and circumscription of their major
     lineages based on DNA sequences of multiple chloroplast loci.";
RT
RL
     Am. J. Bot. 0:0-0(2002).
DR'
     EMBL; AY100885; AAM55663.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
ΚW
     Chloroplast.
FT
     NON TER
                  11
                          11
SQ
     SEQUENCE
                11 AA;
                         1260 MW;
                                 93736D59440861B1 CRC64;
  Query Match
                           18.2%; Score 2; DB 8; Length 11;
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Best Local Similarity
                          100.0%; Pred. No. 1e+05;
             2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            9 DT 10
Qу
              3 DT 4
Db
RESULT 58
Q8MEP5
ID
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
     Q8MEP5
AC
     Q8MEP5;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
     RPL16.
GN
OS
     Hibiscus microchlaenus.
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
     NCBI TaxID=183251;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RL
     Syst. Bot. 27:333-350(2002).
     EMBL; AF384593; AAM50365.1; -.
DR
DR
     GO; GO:0009507; C:chloroplast; IEA.
ΚW
     Chloroplast.
                          1
FT
     NON TER
                   1
                         11
FT
     NON TER
                  11
SQ
     SEQUENCE
                11 AA; 1470 MW; 7227C351D32409D4 CRC64;
                                  Score 2; DB 8; Length 11;
                          18.2%;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
            7 RK 8
Qy
              11
            6 RK 7
Db
RESULT 59
Q8MER1
                                   PRT;
                                            11 AA.
ID
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                 PRELIMINARY;
     Q8MER1;
AC
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Hibiscus calyphyllus.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
```

```
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OC
OX
    NCBI TaxID=183235;
RN
     [1]
     SEQUENCE FROM N.A.
RΡ
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384577; AAM50415.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
     NON TER
                   1
                          1
FT
     NON TER
FT
                  11
                         11
                11 AA;
                        1470 MW; 7227C351D32409D4 CRC64;
     SEOUENCE
SQ
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                      Gaps
 Matches
             2; Conservative
            7 RK 8
Qy
              \Pi
Db
            6 RK 7
RESULT 60
O8MER7
     Q8MER7
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ID
AC
     Q8MER7;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Fioria vitifolia.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Fioria.
OC
OX
     NCBI TaxID=183231;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384570; AAM50408.1; -.
DR
DR
     GO; GO:0009507; C:chloroplast; IEA.
KW
     Chloroplast.
     NON TER
FT
                   1
                          1
     NON TER
FT
                  11
                         11
SO
     SEQUENCE
                11 AA; 1470 MW;
                                  7227C351D32409D4 CRC64;
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
```

```
7 RK 8
Qу
              \Box
            6 RK 7
Db
RESULT 61
038415
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
     Q38415
ID
     038415;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ant1 protein (Fragment).
DE
     Bacteriophage P7.
OS
     Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;
OC
     P1-like viruses.
OC
     NCBI TaxID=10682;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=90335968; PubMed=1696181;
RX
     Citron M., Schuster H.;
RA
     "The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.";
RT
RL
     Cell 62:591-598(1990).
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=92319637; PubMed=1620606;
RX
     Citron M., Schuster H.;
RA
     "The c4 repressor of bacteriophage P1 is a processed 77 base antisense
RT
     RNA.";
RT
     Nucleic Acids Res. 20:3085-3090(1992).
RL
     EMBL; M35139; AAA32437.1; -.
DR
     PIR; S42449; S42449.
DR
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                  11
FT
                         11
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                11 AA; 1315 MW; 38A55C6D11B2C737 CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 9; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
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                                                 0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2; Conservative
            2 KK 3
Qу
              Db
            2 KK 3
RESULT 62
Q37925
ID
     Q37925
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     037925:
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     Bacteriophage fr replicase (Fragment).
OS
     Bacteriophage fr.
     Viruses; ssRNA positive-strand viruses, no DNA stage; Leviviridae;
OC
OC
     Levivirus.
OX
     NCBI TaxID=12017;
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RN

[1]

```
RP
     SEQUENCE FROM N.A.
RA
     Berzin V.M., Gribanov V.A., Cielens I.E., Jansone I.V., Gren E.J.;
     "The nucleotide sequence of the regulatory region of phage fr
RT
RT
     replicase cistron.";
RL
     Bioorg. Khim. 7:306-308(1981).
DR
     EMBL; M34834; AAA32193.1; -.
FT
     NON TER
                   11
                          11
SQ
     SEQUENCE
                 11 AA; 1285 MW;
                                   8BD43470C333321B1 CRC64;
                           18.2%; Score 2; DB 9; Length 11;
  Query Match
  Best Local Similarity
                           100.0%; Pred. No. 1e+05;
             2; Conservative
                                0; Mismatches
                                                      0; Indels
                                                                     0; Gaps
                                                                                 0;
            2 KK 3
Qy
              \perp
            6 KK 7
Db
RESULT 63
Q9S8X4
ID
                  PRELIMINARY;
                                     PRT:
                                             11 AA.
     Q958X4
AC
     Q9S8X4;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update) 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DT
     Vegetative storage protein 94 peptide 3, VSP94=LIPOXYGENASE
DE
DΕ
     (Fragment).
OS
     Glycine max (Soybean).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae; Glycine.
OC
     NCBI TaxID=3847;
OX
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=92361246; PubMed=1822994;
     Tranbarger T.J., Franceschi V.R., Hildebrand D.F., Grimes H.D.;
RA
     "The soybean 94-kilodalton vegetative storage protein is a
RT
RT
     lipoxygenase that is localized in paraveinal mesophyll cell
RT
     vacuoles.";
     Plant Cell 3:973-987(1991).
RL
     NON TER
FT
                   1
                           1
\operatorname{FT}
     NON TER
                   11
                          11
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                                   9B337C3C0DD9CB1A CRC64;
SQ
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                           18.2%; Score 2; DB 10; Length 11;
  Query Match
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                           100.0%; Pred. No. 1e+05;
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             2; Conservative
                                 0; Mismatches
                                                      0; Indels
                                                                     0; Gaps
                                                                                 0;
            4 ER 5
Qу
              11
Db
            9 ER 10
RESULT 64
Q39784
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ID
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                                     PRT;
     Q39784;
AC
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DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
     01-NOV-1996 (TrEMBLrel. 01, Last annotation update)
DΕ
     Alcohol dehydrogenase 2b-2 (Fragment).
OS
     Gossypium hirsutum (Upland cotton).
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Gossypium.
OX
     NCBI TaxID=3635;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=Blue Tag Siokra;
RC
    Millar A.A., Dennis E.S.;
RA
     Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; U53705; AAA98988.1; -.
DR
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1161 MW; D67F443942D6D87D CRC64;
                          18.2%; Score 2; DB 10; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
 Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                       Gaps
                                                                               0;
            1 AK 2
Qу
              \mathbf{I}
Db
           10 AK 11
RESULT 65
082070
ID
     082070
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     082070;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     RNA polymerase (EC 2.7.7.6) (Fragment).
OS
     Triticum aestivum (Wheat).
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
OC
     Triticeae; Triticum.
OX
     NCBI TaxID=4565;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=cv. Chinese Spring;
     Young D.A., Allen R., Harvey A.J., Lonsdale D.M.;
RA
     "Characterization of a gene encoding a single-subunit RNA polymerase
RT
     from maize which is alternatively spliced.";
RT
     Submitted (APR-1998) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AJ005344; CAA06489.1; -.
DR
     GO; GO:0003899; F:DNA-directed RNA polymerase activity; IEA.
DR
     GO; GO:0003900; F:DNA-directed RNA polymerase I activity; IEA.
DR
     GO; GO:0003901; F:DNA-directed RNA polymerase II activity; IEA.
DR
     GO; GO:0003902; F:DNA-directed RNA polymerase III activity; IEA.
DR
DR
     GO; GO:0016740; F:transferase activity; IEA.
     Nucleotidyltransferase; Transferase.
KW
FT
     NON TER
                   1
                          1
     NON TER
FT
                  11
                         11
     SEOUENCE
                11 AA; 1329 MW; CD96344923240AB2 CRC64;
SO
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Best Local Similarity
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                                  0; Mismatches
                                                                       Gaps
                                                                               0;
  Matches
             2; Conservative
                                                    0; Indels
            7 RK 8
Qу
              \mathbf{H}
            6 RK 7
Db
RESULT 66
004131
                                    PRT;
                                            11 AA.
     004131
                 PRELIMINARY;
ID
     004131;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DΤ
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Wound induced protein (Fragment).
     Lycopersicon esculentum (Tomato).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Solanaceae; Solanum.
OC
OX
     NCBI TaxID=4081;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=pik-red; TISSUE=Pericarp;
RC
     MEDLINE=91355936; PubMed=1715787;
RX
RA
     Parsons B.L., Mattoo A.K.;
     "Wound regulated accumulation of specific transcripts in tomato fruit:
RT
     interactions with fruit development, ethylene and light.";
RT
RL
     Plant Mol. Biol. 17:453-464(1991).
DR
     EMBL; X59884; CAA42539.1; -.
DR
     PIR; S19775; S19775.
FT
     NON TER
                   1
SO
     SEQUENCE
                11 AA; 1278 MW;
                                   92CB257828733325 CRC64;
  Query Match
                          18.2%; Score 2; DB 10; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                                                               0;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                   0; Gaps
            2 KK 3
Qy
              11
            5 KK 6
Db
RESULT 67
P83092
ID
     P83092
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     P83092;
DT
     01-OCT-2001 (TrEMBLrel. 18, Created)
     01-OCT-2001 (TrEMBLrel. 18, Last sequence update)
DT
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE
     33.6 kDa protein (Fragment).
     Spinacia oleracea (Spinach).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
OC
     Caryophyllales; Amaranthaceae; Spinacia.
```

18.2%;

Score 2; DB 10; Length 11;

Query Match

```
NCBI TaxID=3562;
OX
RN
     SEQUENCE, AND SUBCELLULAR LOCATION.
RP
     Schubert M., Peterson U., Funk C., Schroeder W.P., Kieselbach T.;
RA
     Submitted (AUG-2001) to Swiss-Prot.
RL
     -!- SUBCELLULAR LOCATION: CHLOROPLAST; WITHIN THE THYLAKOID LUMEN.
CC
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
     Chloroplast.
\Gamma T
     NON TER
                  11
                         11
     SEOUENCE
                        1274 MW; 95344C4D21AAB775 CRC64;
SQ
                11 AA;
                          18.2%; Score 2; DB 10; Length 11;
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                 0; Mismatches
                                                   0;
                                                       Indels
                                                                   0; Gaps
                                                                               0;
 Matches
             2; Conservative
            9 DT 10
Qy
              6 DT 7
Db
RESULT 68
P97755
     P97755
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     P97755;
AC
     01-MAY-1997 (TrEMBLrel. 03, Created)
DT
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
     01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
DT
     Secretogranin II (SGII) (Fragment).
DΕ
     Rattus norvegicus (Rat).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OC
     NCBI TaxID=10116;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=96343805; PubMed=8756552;
RX
     Jones L.C., Day R.N., Pittler S.J., Valentine D.L., Scammell J.G.;
RA
     "Cell-specific expression of the rat secretogranin II promoter.";
RT
     Endocrinology 137:3815-3822(1996).
RL
DR
     EMBL; AF107301; -; NOT ANNOTATED CDS.
     NON TER
FT
                           1
                   1
SQ
     SEOUENCE
                11 AA; 1298 MW;
                                   3E4E8DA446C1B5A7 CRC64;
                           18.2%; Score 2; DB 11; Length 11;
  Ouery Match
                          100.0%; Pred. No. 1e+05;
  Best Local Similarity
                                0; Mismatches
                                                                               0;
             2; Conservative
                                                   0; Indels
                                                                  0; Gaps
  Matches
           10 TQ 11
Qy
              \mathbf{H}
Db
            6 TQ 7
RESULT 69
Q99N81
ID
     Q99N81
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
AC
     Q99N81;
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
```

```
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DE
     Delta like 1 (Fragment).
GN
     DLL1.
OS
     Mus musculus (Mouse).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
     NCBI TaxID=10090;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Nakayama K.;
RA
     "Multiple POU-binding motifs, recognized by tissue-specific nuclear
RT
     factor(S), are important for Dll1 gene expression in developing neural
RT
     precursor cells.";
RT
     Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AB050457; BAB43867.1; -.
DR
    NON TER
FT
                  11
                         11
     SEQUENCE
                11 AA; 1259 MW; 33C3634CBDC40B07 CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 11; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1e+05;
                                                                              0;
                                                                  0; Gaps
 Matches
             2; Conservative
                               0; Mismatches
                                                 0; Indels
            4 ER 5
Qу
              \parallel
            5 ER 6
Db
RESULT 70
Q9JLE6
ID
    Q9JLE6
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     Q9JLE6;
DT
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DE
     Thioredoxin reductase (Fragment).
OS
     Rattus norvegicus (Rat).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX
     NCBI TaxID=10116;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RA
     Rundlof A.-K., Arner E.S.J.;
     "Genomic sequence of parts of the rat thioredoxin reductase 1 gene.";
RT
RL
     Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF189711; AAF26304.1; -.
     NON TER
FT
                  11
                         11
     SEQUENCE
SO
                11 AA; 1255 MW; 804D1A1E6DDAA325 CRC64;
  Query Match
                          18.2%; Score 2; DB 11; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
 Matches
             2; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            8 KD 9
            5 KD 6
Db
```

```
RESULT 71
Q8R2J7
ID
     Q8R2J7
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     Q8R2J7;
DT
     01-JUN-2002 (TrEMBLrel. 21, Created)
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Microphthalmia-associated transcription factor (Fragment).
DΕ
     MITF.
GN
OS
     Mesocricetus auratus (Golden hamster).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC -
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC
OC
     Mesocricetus.
OX
     NCBI TaxID=10036;
RN
     [1]
     SEQUENCE FROM N.A.
RΡ
RC
     TISSUE=Spleen;
RA
     Graw J., Pretsch W., Loester I.;
     "Mutation in intron 6 of the hamster mitf gene leads to skipping of
RT
     the subsequent exon and creates a dominant animal model for the human
RT
     Waardenburg syndrome type II.";
RT
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AJ458439; CAD30263.1; -.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
     SEQUENCE
                        1532 MW; 69D76B515449D414 CRC64;
SQ
                11 AA;
  Query Match
                          18.2%; Score 2; DB 11; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                              0; Mismatches
  Matches
             2; Conservative
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            4 ER 5
              Db
            1 ER 2
RESULT 72
P89269
ID
     P89269
                 PRELIMINARY;
                                   PRT;
                                            11 AA.
AC
     P89269;
     01-MAY-1997 (TrEMBLrel. 03, Created)
DT
     01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DE
     DNA binding protein homolog (Fragment).
OS
     Xestia c-nigrum granulosis virus (XnGV) (Xestia c-nigrum
OS
     granulovirus).
OC
     Viruses; dsDNA viruses, no RNA stage; Baculoviridae; Granulovirus.
OX
     NCBI TaxID=51677;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=alpha-4;
RX
     MEDLINE=98271593; PubMed=9608666;
RA
     Goto C., Hayakawa T., Maeda S.;
RT
     "Genome organization of Xestia c-nigrum granulovirus.";
RL
     Virus Genes 16:199-210(1998).
DR
     EMBL; U70897; AAB46487.1; -.
FT
     NON TER
                   1
                          1
```

```
SO
     SEQUENCE
                11 AA; 1371 MW; 6F05444F52C1E454 CRC64;
  Query Match
                          18.2%; Score 2; DB 12; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
            2; Conservative
                                0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            6 QR 7
Qу
              2 QR 3
Db
RESULT 73
Q84073
ΙD
     084073
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
     084073;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Influenza A/fpv/rostock/34 (H7n1), polymerase 3 (Seg 3), 3' end of
DE
     vrna (Initiator region for protein coding) (Fragment).
DE
     Influenzavirus A.
OS
OC
    Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC
     Influenza A viruses.
OX
    NCBI TaxID=197911;
RN
    [1]
    SEQUENCE FROM N.A.
RP
RX
    MEDLINE=80034428; PubMed=493121;
RA
    Robertson J.S.;
RT
     "5' and 3' terminal nucleotide sequences of the rna genome segments of
RT
     influenza virus.";
RL
     Nucleic Acids Res. 6:3745-3757(1979).
DR
     EMBL; J02123; AAA43612.1; -.
    NON TER
FT
                 11
                         11
     SEQUENCE
SQ
                11 AA; 1400 MW; CC2007F7A6C412C9 CRC64;
                          18.2%; Score 2; DB 12; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
            2; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RQ 6
Qу
             Db
            6 RQ 7
RESULT 74
Q69269
ID
    Q69269
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC
    069269;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
    01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
    01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
DE
    Hypothetical protein (Fragment).
GN
OS
    Equine herpesvirus 1.
    Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
OC
OC
    Alphaherpesvirinae; Varicellovirus.
OX
    NCBI TaxID=10326;
```

```
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Kentucky A;
     MEDLINE=90064773; PubMed=2555546;
RX
RA
     Harty R.N., Colle C.F., Grundy F.J., O'Callaghan D.J.;
     "Mapping the termini and intron of the spliced immediate-early
RT
     transcript of equine herpesvirus 1.";
RT
     J. Virol. 63:5101-5110(1989).
RL
     EMBL; M30497; AAA66553.1; -.
DR
     Hypothetical protein.
KW
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1224 MW; D93837E0CAB5A416 CRC64;
SO
                          18.2%; Score 2; DB 12; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
                                                   0;
  Matches
             2; Conservative
                              0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            6 QR 7
Qу
              11
Db
            4 OR 5
RESULT 75
0800X7
     Q800X7
ID
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q800X7;
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Created)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Vacuolar H-ATPase B subunit (Fragment).
OS
     Chelydra serpentina serpentina (common snapping turtle).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Testudines; Cryptodira; Testudinoidea; Chelydridae; Chelydra.
OX
     NCBI TaxID=134619;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=21876906; PubMed=11882478;
RA
     Trudeau V.L., Chiu S., Kennedy S.W., Brooks R.J.;
RT
     "Octylphenol (OP) alters the expression of members of the amyloid
RT
     protein family in the hypothalamus of the snapping turtle, Chelydra
RT
     serpentina serpentina.";
     Environ. Health Perspect. 110:269-275(2002).
RL
     EMBL; AF469184; AA048730.1; -.
DR
     NON TER
FT
                   1
     SEQUENCE
SQ
                11 AA; 1350 MW; 2FC8B6D0B5BAB417 CRC64;
  Query Match
                          18.2%; Score 2; DB 13; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1e+05;
  Matches
             2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 AK 2
Qy
              11
Db
            9 AK 10
```

Search completed: April 8, 2004, 15:46:01 Job time: 28.7692 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 5.15385 Seconds

(without alignments)

111.135 Million cell updates/sec

70

Title: US-09-787-443A-2

Perfect score: 11

Sequence: 1 AKKERQRKDTQ 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 141681 seqs, 52070155 residues

Word size :

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: SwissProt 42:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Danult		8				
Result No.	Score	Query Match	Length	DB	ID	Description
1	2	18.2	11	1	ASL2 BACSE	P83147 bacteroides
2	2	18.2	11	1	BRK MEGFL	P12797 megascolia
3	2	18.2	11	1	NXSN_PSETE	P59072 pseudonaja
4	2	18.2	11	1	PKC1 CARMO	P82684 carausius m
5	2	18.2	11	1	PQQC PSEFL	P55173 pseudomonas
6	2	18.2	11	1	Q2OA COMTE	P80464 comamonas t
7	2	18.2	11	1	TKNA RANRI	P29207 rana ridibu
8	2	18.2	11	1	TKND_RANCA	P22691 rana catesb
9	2	18.2	11	1	TKN ELEMO	P01293 eledone mos
10	2	18.2	11	1	UXB2 YEAST	P99013 saccharomyc
11	1	9.1	11	1	ANGT CRIGE	P09037 crinia geor
12	1	9.1	11	1	ASL1_BACSE	P83146 bacteroides
13	1	9.1	11	1	BPP3 BOTIN	P30423 bothrops in
14	1	9.1	11	1	BPP4 BOTIN	P30424 bothrops in
15	1	9.1	11	1	BPPB AGKHA	P01021 agkistrodon
16	1	9.1	11	1	BPP AGKHP	P04562 agkistrodon
17	1	9.1	11	1	CA21_LITCI	P82087 litoria cit

18	1	9.1	11	1	CA22_LITCI			litoria cit
19	1	9.1	11	1	CA31_LITCI			litoria cit
20	1	9.1	11	1	CA32_LITCI			litoria cit
21	1	9.1	11	1	CA41_LITCI			litoria cit
22	1	9.1	11	1	CA42_LITCI			litoria cit
23	1	9.1	11	1	CEP1_ACHFU			achatina fu
24	1	9.1	11	1	CORZ_PERAM	P114	496	periplaneta
25	1	9.1	11	1	COXA_CANFA	P99!	501	canis famil
26	1	9.1	11	1	CSI5_BACSU			bacillus su
27	1	9.1	11	1	CX5A_CONAL	P588	348	conus aulic
28	1	9.1	11	1	CX5B_CONAL	P588	349	conus aulic
29	1	9.1	11	1	CXL1_CONMR	P588	307	conus marmo
30	1	9.1	11	1	EFG CLOPA	P813	350	clostridium
31	1	9.1	11	1	ES1 RAT	P565	571	rattus norv
32	1	9.1	11	1	FAR6 PENMO	P833	321	penaeus mon
33	1	9.1	11	1	FAR9 CALVO	P418	364	calliphora
34	1	9.1	11	1	HS70 PINPS	P816	672	pinus pinas
35	1	9.1	11	1	LADD ONCMY			oncorhynchu
36	1	9.1	11	1	LPW THETH			thermus the
37	1	9.1	11	1	LSK1 LEUMA			leucophaea
38	1	9.1	11	1	LSKP PERAM			periplaneta
39	1	9.1	11	1	MHBI KLEPN			klebsiella
40	1	9.1	11	1	MLG THETS			theromyzon
41	1	9.1	11	1	MORN HUMAN			homo sapien
42	$\tilde{1}$	9.1	11	1	NUHM CANFA			canis famil
43	1	9.1	11	1	OAIF SARBU			sarcophaga
44	1	9.1	11	1	PVK1 PERAM			periplaneta
45	1	9.1	11	1	RANC RANPI			rana pipien
46	1	9.1	11	1	RE41 LITRU			litoria rub
47	1	9.1	11	1	RR2 CONAM			conopholis
48	1	9.1	11	1	RRPL CHAV			chandipura
49	1	9.1	11	1	RS30 ONCMY			oncorhynchu
50	1	9.1	11	1	T2P1 PROVU			proteus vul
51	1	9.1	11	1	TIN1 HOPTI			hoplobatrac
52	1	9.1	11	1	TIN4 HOPTI			hoplobatrac
53	1	9.1	11	1	TKC2 CALVO			calliphora
54	1	9.1	11	1	TKN1 PSEGU			pseudophryn
55	1	9.1	11	1	TKN1_UPEIN			uperoleia i
56	1	9.1	11	1	TKN1 UPERU			uperoleia r
57	1	9.1	11	1	TKN2_PSEGU			pseudophryn
58	1	9.1	11	1	TKN2_FSEGO			uperoleia r
59	1	9.1	11	1	TKN3 PSEGU			pseudophryn
60	1	9.1	11	1	TKN4 PSEGU			pseudophryn
61		9.1	11	1	TKN4_FSEGU			pseudophryn
62	1 1	9.1	11	1				gallus gall
63	1		11		TKNA_CHICK			gadus morhu
64	1	$9.1 \\ 9.1$	11	1 1	TKNA_GADMO			equus cabal
					TKNA_HORSE			
65 66	1	9.1	11	1	TKNA_ONCMY			oncorhynchu
66	1	9.1	11	1 1	TKNA_RANCA			rana catesb scyliorhinu
67 69	1	9.1	11		TKNA_SCYCA			
68	1	9.1	11	1	TKN_PHYFU			physalaemus
69 70	1	9.1	11	1	UF05_MOUSE			mus musculu
70	1	9.1	11	1	ULAG_HUMAN	P31:	<b>ラ</b> ろろ	homo sapien

```
RESULT 1
ASL2 BACSE
     ASL2 BACSE
                                    PRT;
ID
                    STANDARD:
                                            11 AA.
     P83147;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
DE
     Bacteroides stercoris.
OS
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
RN
     [1]
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RC
     STRAIN=HJ-15;
RX
     MEDLINE=21223019; PubMed=11322884;
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
RT
     "Purification and characterization of acharan sulfate lyases, two
     novel heparinases, from Bacteroides stercoris HJ-15.";
RT
     Eur. J. Biochem. 268:2635-2641(2001).
RL
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
KW
     Lyase; Heparin-binding.
FT
     NON_TER
                   1
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA; 1195 MW;
                                  D79D897C7AA451AD CRC64;
SQ
  Query Match
                          18.2%;
                                  Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
  Matches
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
            6 QR 7
Qу
              11
Db
           10 QR 11
RESULT 2
BRK MEGFL
     BRK MEGFL
                                   PRT;
                                            11 AA.
ID
                    STANDARD;
AC
     P12797;
     01-OCT-1989 (Rel. 12, Created)
DT
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DE
DE
     peptide ([Thr6]bradykinin)].
OS
     Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
     Scoliidae; Megascolia.
```

```
NCBI TaxID=7437;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Venom;
RC
     MEDLINE=87293024; PubMed=3617088;
RX
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
RA
RT
     "Two kinins isolated from an extract of the venom reservoirs of the
     solitary wasp Megascolia flavifrons.";
RT
     Toxicon 25:527-535(1987).
RL
RN
     [2]
RΡ
     SEQUENCE.
RC
     TISSUE=Venom;
     Nakajima T., Piek T., Yashuara T., Mantel P.;
RA
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RT
     Toxicon 26:34-34(1988).
RL
CC
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
         activities (e.g. smooth muscle contraction).
CC
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
DR
     PIR; B26744; B26744.
     GO; GO:0005615; C:extracellular space; IDA.
DR
     GO; GO:0045776; P:negative regulation of blood pressure; ISS.
DR
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
DR
KW
     Bradykinin; Vasodilator.
     PEPTIDE
                                  MEGASCOLIAKININ.
FT
                   1
                         11
     PEPTIDE
                   1
                          9
                                  BRADYKININ-LIKE PEPTIDE.
FT
SO
     SEQUENCE
                11 AA;
                        1273 MW;
                                  33867393D771A9C8 CRC64;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
  Matches
             2; Conservative
                                 0; Mismatches
                                                   0;
                                                        Indels
                                                                  0; Gaps
                                                                               0;
            7 RK 8
Qу
              11
            9 RK 10
Db
RESULT 3
NXSN PSETE
ID
     NXSN PSETE
                    STANDARD;
                                    PRT;
                                            11 AA.
     P59072;
AC
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
DE
OS
     Pseudonaja textilis (Eastern brown snake).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Elapidae; Acanthophiinae; Pseudonaja.
OX
     NCBI TaxID=8673;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Venom;
RX
     MEDLINE=99449602; PubMed=10518793;
     Gong N.L., Armugam A., Jeyaseelan K.;
RA
RT
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
```

```
Eur. J. Biochem. 265:982-989(1999).
RL
CC
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
CC
         acetylcholine receptors (nAChR).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
     InterPro; IPR003571; Snake toxin.
DR
     PROSITE; PS00272; SNAKE TOXIN; PARTIAL.
DR
KW
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
     Acetylcholine receptor inhibitor; Multigene family.
KW
     UNSURE
FT
                   3
                          3
     NON TER
                  11
                         11
FT
     SEOUENCE
                11 AA;
                        1319 MW; OD1EF0C81B58732B CRC64;
SO
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
             2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
            9 DT 10
Qу
              9 DT 10
Db
RESULT 4
PKC1 CARMO
     PKC1 CARMO
                    STANDARD;
                                   PRT;
                                           11 AA.
АC
     P82684;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
DE
OS
     Carausius morosus (Indian stick insect).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
     Heteronemiidae; Carausius.
OC
OX
     NCBI TaxID=7022;
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Corpora cardiaca;
RA
     Predel R., Kellner R., Gaede G.;
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
     insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RT
RL
     Eur. J. Entomol. 96:275-278 (1999).
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
CC
         activity).
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
     InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
DR
KW
     Neuropeptide; Amidation; Pyrokinin.
FT
     MOD RES
                  11
                                  AMIDATION.
                         11
SO
     SEQUENCE
                11 AA; 1236 MW; 2BFA5225BB46C1A8 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
```

```
Matches 2; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                         0;
          10 TQ 11
Qу
             5 TQ 6
Db
RESULT 5
PQQC PSEFL
    PQQC PSEFL
                   STANDARD;
                                 PRT; 11 AA.
    P55173;
AC
    01-OCT-1996 (Rel. 34, Created)
DT
    01-OCT-1996 (Rel. 34, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
DE
    biosynthesis protein C) (Fragment).
DE
GN
    PQQC.
OS
    Pseudomonas fluorescens.
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
    Pseudomonadaceae; Pseudomonas.
OC
OX
    NCBI TaxID=294;
RN
    [1]
RP
    SEQUENCE FROM N.A.
    STRAIN=CHA0;
RC
RX
    MEDLINE=96064397; PubMed=8526497;
    Schnider U., Keel C., Defago G., Haas D.;
RA
RT
    "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHAO:
RT
    mutational inactivation of the genes results in overproduction of the
RT
    antibiotic pyoluteorin.";
RL
    Appl. Environ. Microbiol. 61:3856-3864(1995).
CC
    -!- PATHWAY: Pyrrologuinoline quinone (PQQ) biosynthesis.
CC
    -!- SIMILARITY: Belongs to the pqqC family.
CC
CC
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CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
    the European Bioinformatics Institute. There are no restrictions on its
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CC
    EMBL; X87299; CAA60734.1; -.
DR
DR
    PIR; S58244; S58244.
DR
    HAMAP; MF 00654; -; 1.
KW
    PQQ biosynthesis.
    NON TER
FT
              11
                       11
    SEQUENCE
SQ
               11 AA; 1182 MW; 89DF46E4C5B73771 CRC64;
                        18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
 Matches
           2; Conservative 0; Mismatches 0; Indels
           9 DT 10
Qу
             \perp
```

3 DT 4

Db

```
RESULT 6
Q2OA COMTE
ID
     Q2OA COMTE
                     STANDARD;
                                    PRT;
                                             11 AA.
     P80464;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update)
DT
DT
     Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
DΕ
     Comamonas testosteroni (Pseudomonas testosteroni).
OS
     Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
OC
     Comamonadaceae; Comamonas.
OX
     NCBI TaxID=285;
RN
     [1]
     SEQUENCE.
RP
     STRAIN=63;
RC
RX
     MEDLINE=96035889; PubMed=7556204;
RA
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
RT
     quinoline and 3-methylquinoline degradation.";
     Eur. J. Biochem. 232:536-544(1995).
RL
CC
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
         1,2-dihydroquinoline.
CC
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)O = isoquinolin-
CC
         1(2H)-one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
CC
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
         step.
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
         two gamma chains (Probable).
DR
     PIR; S66606; S66606.
KW
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
FT
     NON TER
                  11
                          11
     SEQUENCE
SQ
                11 AA;
                         1213 MW; 869094322B1DC2CA CRC64;
  Query Match
                           18.2%;
                                   Score 2; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 1.2e+04;
                                  0; Mismatches
                                                                    0; Gaps
                                                                                 0;
  Matches
             2; Conservative
                                                     0; Indels
            1 AK 2
Qу
              \mathbf{I}
Db
            1 AK 2
RESULT 7
TKNA RANRI
     TKNA RANRI
ID
                     STANDARD;
                                    PRT;
                                             11 AA.
AC
     P29207;
     01-DEC-1992 (Rel. 24, Created)
DT
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Ranakinin (Substance-P-related peptide).
     Rana ridibunda (Laughing frog) (Marsh frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OX
     NCBI TaxID=8406;
RN
     [1]
```

```
RP
     SEQUENCE.
RC
    TISSUE=Brain;
RX
    MEDLINE=92044543; PubMed=1658233;
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RA
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
RT
     neurokinin B from the brain of the frog Rana ridibunda.";
RT
     J. Neurochem. 57:2086-2091(1991).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation.
KW
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                                  3A2460CC59D40B07 CRC64;
                11 AA; 1352 MW;
SQ
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
                                                    0; Indels
            4 ER 5
Qу
             Dh
            5 ER 6
RESULT 8
TKND RANCA
     TKND RANCA
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P22691;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin D (RTK D).
DE
OS
     Rana catesbeiana (Bull frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8400;
OX
RN
     SEQUENCE, AND SYNTHESIS.
RP
     TISSUE=Intestine;
RC
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
```

```
RT
     intestine.";
RL
     Regul. Pept. 46:81-88(1993).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
         muscles.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; D61033; D61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; FALSE NEG.
DR
ΚW
     Tachykinin; Neuropeptide; Amidation.
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
                11 AA; 1350 MW; 3A34256C59D40B07 CRC64;
SO
     SEQUENCE
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
 Matches
            2: Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            4 ER 5
Qу
              1.1
            5 ER 6
Db
RESULT 9
TKN ELEMO
    TKN ELEMO
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P01293;
DT
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Eledoisin.
     Eledone moschata (Musky octopus) (Ozaena moschata), and
OS
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OS
OC
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OX
     NCBI TaxID=6641, 102876;
RN
     [1]
RP
     SEQUENCE.
     Anastasi A., Erspamer V.;
RA
     "The isolation and amino acid sequence of eledoisin, the active
RT
RT
     endecapeptide of the posterior salivary glands of Eledone.";
     Arch. Biochem. Biophys. 101:56-65(1963).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
KW
     3D-structure.
```

```
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                                  AMIDATION.
                         11
SQ
     SEQUENCE
                11 AA; 1206 MW;
                                  570D7C2559CDDAA3 CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
             2; Conservative
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
                                                    0;
                                                       Indels
            8 KD 9
Qv
             - 11
            4 KD 5
Db
RESULT 10
UXB2 YEAST
     UXB2 YEAST
                    STANDARD;
                                            11 AA.
                                   PRT;
ID
     P99013;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
DE
     Saccharomyces cerevisiae (Baker's yeast).
OS
OC
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX
     NCBI TaxID=4932;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=X2180-1A;
     Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
RA
     Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RA
RL
     Submitted (AUG-1995) to Swiss-Prot.
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 6.20, its MW is: 9.2 kDa.
DR
     SWISS-2DPAGE; P99013; YEAST.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1328 MW;
                                  EC38021C0DCB42DA CRC64;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
 Matches
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            7 RK 8
Qу
              11
            8 RK 9
Db
RESULT 11
ANGT CRIGE
     ANGT CRIGE
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P09037;
DT
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Crinia-angiotensin II.
OS
     Crinia georgiana (Quacking frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
```

```
Myobatrachinae; Crinia.
OX
     NCBI TaxID=8374;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=80024575; PubMed=488254;
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
RA
RT
     "Amino acid composition and sequence of crinia-angiotensin, an
RT
     angiotensin II-like endecapeptide from the skin of the Australian
     frog Crinia georgiana.";
RT
RL
     Experientia 35:1132-1133(1979).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     PIR; S07207; S07207.
DR
KW
     Vasoconstrictor.
     SEQUENCE
                11 AA; 1271 MW; 8A0921F7DB50440A CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
             1: Conservative
                                 0: Mismatches
                                                    0; Indels
                                                                  0:
                                                                       Gaps
                                                                               0:
            1 A 1
Qy
Db
            1 A 1
RESULT 12
ASL1 BACSE
ID
     ASL1 BACSE
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P83146;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΕ
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
OS
     Bacteroides stercoris.
OC
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OX
     NCBI TaxID=46506;
RN
     [1]
RP
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RC
     STRAIN=HJ-15;
RX
     MEDLINE=21223019; PubMed=11322884;
RA
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RT
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
     Eur. J. Biochem. 268:2635-2641(2001).
RL
CC
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
CC
        Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
        mercaptoethanol.
     -!- SUBUNIT: Monomer.
CC
CC
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
ΚW
     Lyase; Heparin-binding.
FT
     NON TER
                   1
```

OC

```
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA;
SQ
                        1395 MW;
                                  01B2DAA241E865AB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
  Matches
                               0; Mismatches 0;
                                                                              0;
             1; Conservative
                                                       Indels
                                                                  0; Gaps
Qу
            6 Q 6
Db
           11 Q 11
RESULT 13
BPP3 BOTIN
     BPP3 BOTIN
ID
                    STANDARD:
                                   PRT:
                                           11 AA.
AC
     P30423;
DT
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DE
DΕ
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OC
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
     MEDLINE=90351557; PubMed=2386615;
RX
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
     "Primary structure and biological activity of bradykinin potentiating
RT
RT
     peptides from Bothrops insularis snake venom.";
RL
     J. Protein Chem. 9:221-227(1990).
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; C37196; C37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                         1
                                  PYRROLIDONE CARBOXYLIC ACID.
SQ
     SEQUENCE
                11 AA; 1199 MW; 20B25813C7741777 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                                0; Mismatches
 Matches
                                                   0;
             1; Conservative
                                                      Indels
                                                                  0; Gaps
                                                                              0;
Qу
            6 Q 6
Db
            1 Q 1
RESULT 14
BPP4 BOTIN
     BPP4 BOTIN
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
АC
     P30424;
DT
     01-APR-1993 (Rel. 25, Created)
```

```
01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DE
DΕ
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OC
OX
    NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
    TISSUE=Venom;
    MEDLINE=90351557; PubMed=2386615;
RX
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
CC
         bradykinin by inhibiting the kinases that inactivate it.
         It acts as an indirect hypotensive agent.
CC
DR
     PIR; D37196; D37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
                11 AA; 1143 MW;
SQ
     SEQUENCE
                                  20BBBF13C7741777 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                                0; Mismatches
                                                  0; Indels
                                                                               0;
 Matches
             1; Conservative
                                                                  0; Gaps
            6 Q 6
Qу
Dh
            1 Q 1
RESULT 15
BPPB AGKHA
     BPPB AGKHA
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P01021;
\mathsf{D}\mathbf{T}
     21-JUL-1986 (Rel. 01, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide B (Angiotensin-converting
     enzyme inhibitor).
DE
OS
     Agkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=242054;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RA
     Kato H., Suzuki T.;
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
RT
     the venom of Agkistrodon halys blomhoffii.";
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
```

```
CC
         bradykinin by inhibiting the kinases that inactivate it.
         It acts as an indirect hypotensive agent.
CC
     PIR; A01254; XASNBA.
DR
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
    MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
     SEQUENCE
                11 AA; 1199 MW;
                                  295CBF0627741777 CRC64;
SO
                           9.1%;
                                  Score 1; DB 1; Length 11;
 Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                              0;
             1; Conservative
                                                   0; Indels
                                                                  0; Gaps
            606
Qy
Db
            1 0 1
RESULT 16
BPP AGKHP
                                   PRT:
                                           11 AA.
ID
     BPP AGKHP
                    STANDARD:
     P04562;
AC
     13-AUG-1987 (Rel. 05, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
DE
     enzyme inhibitor).
OS
    Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
    pallas).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
     Viperidae; Crotalinae; Gloydius.
OC
OX
    NCBI TaxID=8714;
RN
     [1]
RP
     SEQUENCE.
RC
    TISSUE=Venom;
    MEDLINE=86177022; PubMed=3008123;
RX
RA
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
     "Structure-function studies on the bradykinin potentiating peptide
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
RT
     Peptides 6 Suppl. 3:339-342(1985).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; JC0002; XAVIBH.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
     SEQUENCE
                11 AA; 1112 MW;
                                  30BABF1277686777 CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                 0; Mismatches
                                                   0;
                                                                              0;
  Matches
             1;
                Conservative
                                                       Indels
                                                                  0; Gaps
            6 Q 6
Qу
Db
            1 Q 1
```

angiotensin-converting enzyme and enhances the action of

CC

```
CA21 LITCI
     CA21 LITCI
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P82087;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 2.1/2.1Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
FT
     MOD RES
                   4
                          4
                                  SULFATION.
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEQUENCE
                11 AA; 1312 MW;
                                  10DAB7C4EDD861BB CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
 Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            6 Q 6
Db
            1 Q 1
RESULT 18
CA22 LITCI
                                   PRT;
                                            11 AA.
ID
     CA22 LITCI
                    STANDARD;
AC
     P82088:
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 2.2/2.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
```

RESULT 17

```
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                   4
                          4
                                  SULFATION.
FT
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1328 MW; 10DAB894EDD861BB CRC64;
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
             1; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            6 Q 6
Qу
Db
            1 Q 1
RESULT 19
CA31 LITCI
     CA31 LITCI
                                            11 AA.
ID
                    STANDARD;
                                   PRT;
AC
     P82089;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 3.1/3.1Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
```

```
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.1Y4 differs from isoform 3.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
FT
     MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1347 MW; 10DAB7D67861A86B CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
  Matches
             1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
            606
Qу
            1 Q 1
Db
RESULT 20
CA32 LITCI
     CA32 LITCI
                    STANDARD;
ID
                                   PRT;
                                           11 AA.
AC
     P82090;
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 3.2/3.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OX
     NCBI TaxID=94770;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=20057701; PubMed=10589099;
RA.
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
CC
     -!- SIMILARITY: Belongs to the qastrin/cholecystokinin family.
```

```
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
KW
    Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   4
                          4
                                   SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1363 MW;
                                  10DAB8867861A86B CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            6 Q 6
Qу
Db
            1 Q 1
RESULT 21
CA41 LITCI
     CA41 LITCI
                    STANDARD:
                                    PRT:
                                            11 AA.
ID
AC
     P82091;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Caerulein 4.1/4.1Y4.
OS
     Litoria citropa (Australian blue mountains tree frog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
RX
    MEDLINE=20057701; PubMed=10589099;
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the qastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                                   PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
    MOD RES
FT
                   4
                          4
                                   SULFATION.
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
                                  10DAB7C4F5B861BB CRC64;
     SEQUENCE
                11 AA; 1328 MW;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
```

DR

InterPro; IPR001651; Gastrin.

```
Best Local Similarity
                        100.0%; Pred. No. 9.2e+04;
            1; Conservative
 Matches
                                 0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            606
Qу
            1 Q 1
Db
RESULT 22
CA42 LITCI
     CA42 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82092;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 4.2/4.2Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
RT
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RL
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
CC
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
KW
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
     Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
FT
    MOD RES
                   4
                          4
                                  SULFATION.
     MOD RES
FT
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1344 MW; 10DAB894F5B861BB CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                                                                  0; Gaps
  Matches
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                              0;
Qy
            606
Db
            1 Q 1
```

RESULT 23 CEP1 ACHFU

```
CEP1 ACHFU
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
     P22790;
AC
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
DT
     01-DEC-1992 (Rel. 24, Last annotation update)
     Cardio-excitatory peptide-1 (ACEP-1).
DE
     Achatina fulica (Giant African snail).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC
     NCBI TaxID=6530;
OX
RN
     [1]
RР
     SEQUENCE.
     STRAIN=Ferussac; TISSUE=Heart atrium;
RC
     MEDLINE=90211261; PubMed=2322251;
RX
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
     "A novel cardio-excitatory peptide isolated from the atria of the
RT
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
CC
         muscle and the identified neurons controlling the buccal muscle
         movement of achatina.
CC
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
CC
     PIR; A34662; A34662.
DR
     Hormone; Amidation.
KW
\mathbf{FT}
     MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1305 MW; 82D6D5B9C7741365 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
  Matches
            1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 Q 6
Qу
            3 Q 3
Db
RESULT 24
CORZ PERAM
     CORZ PERAM
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
     P11496;
AC
DT
     01-OCT-1989 (Rel. 12, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΤ
DE
     Corazonin.
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OC
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Corpora cardiaca;
RX
     MEDLINE=89325572; PubMed=2753132;
RA
     Veenstra J.A.;
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
     the American cockroach.";
RT
```

```
RL
     FEBS Lett. 250:231-234(1989).
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
CC
         in the physiological regulation of the heart beat.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     PIR; S05002; S05002.
DR
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
KW
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                                  AMIDATION.
FT
                  11
                         11
                        1387 MW; C7CFF32D6415AB46 CRC64;
     SEQUENCE
                11 AA;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                                                                              0;
                              0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
            1; Conservative
            6 Q 6
Qу
            1 Q 1
Db
RESULT 25
COXA CANFA
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     COXA CANFA
AC
     P99501;
DT
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DE
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
GN
    COX5A.
OS
    Canis familiaris (Dog).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX
    NCBI TaxID=9615;
RN
     [1]
     SEQUENCE.
RP
RC
    TISSUE=Heart;
RX
    MEDLINE=98163340; PubMed=9504812;
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
RT
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
     Electrophoresis 18:2795-2802(1997).
RL
CC
     -!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
CC
         c + 2 H(2)0.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
    HSC-2DPAGE; P99501; DOG.
DR
     InterPro; IPR003204; Cyt c ox5A.
DR
     Pfam; PF02284; COX5A; 1.
DR
KW
     Oxidoreductase; Heme; Mitochondrion; Inner membrane.
FT
     NON TER
                  11
                         11
     SEQUENCE
SQ
                11 AA; 1274 MW; 910B35C5B1AB11F5 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
             1; Conservative
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
```

```
4 E 4
QУ
            6 E 6
Db
RESULT 26
CSI5 BACSU
     CSI5 BACSU
                                    PRT;
ID
                    STANDARD:
                                            11 AA.
     P81095;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
DE
OS
     Bacillus subtilis.
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
OX
     NCBI TaxID=1423;
RN
     [1]
     SEQUENCE.
RP
     STRAIN=168 / JH642;
RC
     Graumann P.L., Schmid R., Marahiel M.A.;
RA
     Submitted (OCT-1997) to Swiss-Prot.
RL
RN
     [2]
RP
     CHARACTERIZATION.
RC
     STRAIN=168 / JH642;
     MEDLINE=96345629; PubMed=8755892;
RX
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
RA
RT
     "Cold shock stress-induced proteins in Bacillus subtilis.";
RL
     J. Bacteriol. 178:4611-4619(1996).
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- INDUCTION: In response to low temperature.
CC
     -!- CAUTION: Could not be found in the genome of B. subtilis 168.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1360 MW; 15F6ECEE6322C330 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                                  0; Mismatches
                                                                   0; Gaps
  Matches
             1; Conservative
                                                    0; Indels
            5 R 5
Qу
            2 R 2
Db
RESULT 27
CX5A CONAL
ID
     CX5A CONAL
                    STANDARD:
                                    PRT;
                                            11 AA.
AC
     P58848;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Conotoxin au5a.
OS
     Conus aulicus (Court cone).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
     Neogastropoda; Conoidea; Conidae; Conus.
OC
OX
     NCBI TaxID=89437;
```

RN

[1]

```
SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
     TISSUE=Venom;
RC
RX
     MEDLINE=99452958; PubMed=10521453;
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
     ERRATUM.
RP
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
CC
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
         observed when injected into mice.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; A59146; A59146.
DR
KW
     Toxin.
FT
     DISULFID
                   3
                         10
FT
     DISULFID
                11 AA; 1441 MW;
                                  21A36775440059D7 CRC64;
SQ
     SEQUENCE
  Query Match
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
  Matches
             1; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            5 R 5
            7 R 7
Db
RESULT 28
CX5B CONAL
                                           11 AA.
     CX5B CONAL
                    STANDARD;
                                   PRT;
ID
     P58849;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
     Conotoxin au5b.
OS
     Conus aulicus (Court cone).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
```

RP

```
ERRATUM.
RP
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice (By similarity).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; B59146; B59146.
DR
KW
     Toxin.
                   2
                          9
FT
     DISULFID
                         10
     DISULFID
                   3
FT
                       1393 MW;
                                  21A36775440042D7 CRC64;
     SEQUENCE
                11 AA;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches
             1; Conservative
                                0; Mismatches
            5 R 5
Qу
              -1
Db
            7 R 7
RESULT 29
\mathtt{CXL1}\_\mathtt{CONMR}
     CXL1 CONMR
                                            11 AA.
                    STANDARD;
                                    PRT;
AC
     P58807;
DT
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Lambda-conotoxin CMrVIA.
OS
     Conus marmoreus (Marble cone).
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OX
     NCBI TaxID=42752;
     [1]
RN
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
RX
     MEDLINE=20564325; PubMed=10988292;
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
RA
     Seow K.T., Bay B.-H.;
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
RT
     pattern and protein folding. Isolation and characterization from the
RT
     venom of Conus marmoreus.";
RL
     J. Biol. Chem. 275:39516-39522(2000).
CC
     -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
     -!- MASS SPECTROMETRY: MW=1237.93; MW_ERR=0.21; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
CC
     Neurotoxin; Toxin; Hydroxylation.
KW
FT
     DISULFID
                   2
                         11
```

RN

[2]

```
FT
    DISULFID
                   3
                          8
     MOD RES
                  10
                         10
                                  HYDROXYLATION.
FT
SQ
     SEQUENCE
                11 AA; 1226 MW;
                                  277AAC60B7232B58 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            2 K 2
Qy
            6 K 6
Db
RESULT 30
EFG CLOPA
                                   PRT:
                                           11 AA.
    EFG CLOPA
                    STANDARD;
ID
     P81350;
AC
     15-JUL-1998 (Rel. 36, Created)
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Elongation factor G (EF-G) (CP 5) (Fragment).
DE
GN
     FUSA.
os
     Clostridium pasteurianum.
OC
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
     Clostridium.
     NCBI TaxID=1501;
OX
RN
     [1]
RP
     SEQUENCE.
     STRAIN=W5;
RC
     MEDLINE=98291870; PubMed=9629918;
RX
RA
     Flengsrud R., Skjeldal L.;
RT
     "Two-dimensional gel electrophoresis separation and N-terminal
RT
     sequence analysis of proteins from Clostridium pasteurianum W5.";
RL
     Electrophoresis 19:802-806(1998).
CC
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
         ribosome.
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
CC
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
         EF-G/EF-2 subfamily.
     InterPro; IPR000795; EF GTPbind.
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
DR
     Elongation factor; Protein biosynthesis; GTP-binding.
KW
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1337 MW; 412E71F1D9C33B17 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
  Matches
             1; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            2 K 2
              1
Db
            1 K 1
```

RESULT 31 ES1 RAT

```
ID
     ES1 RAT
                    STANDARD:
                                    PRT;
                                             11 AA.
AC
     P56571;
DT
     15-DEC-1998 (Rel. 37, Created)
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     ES1 protein, mitochondrial (Fragment).
DΕ
OS
     Rattus norvegicus (Rat).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OC
OX
     NCBI TaxID=10116;
RN
     [1]
     SEQUENCE.
RP
     STRAIN=Wistar; TISSUE=Heart;
RC
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
RA
     Jungblut P.R.;
     Submitted (SEP-1998) to Swiss-Prot.
RL
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
CC
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
         P2) is: 8.9, its MW is: 25 kDa.
CC
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
CC
KW
     Mitochondrion.
FT
     NON TER
                  11
                          11
SO
     SEQUENCE
                11 AA; 1142 MW;
                                   D862272D32C72DC2 CRC64;
  Query Match
                            9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 9.2e+04;
  Matches
             1; Conservative
                               0; Mismatches
                                                     0; Indels
                                                                    0; Gaps
                                                                                0;
            5 R 5
Qу
Db
            1 R 1
RESULT 32
FAR6 PENMO
ID
     FAR6 PENMO
                     STANDARD;
                                    PRT;
                                             11 AA.
AC
     P83321;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update)
DT
DT
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
DE
     Penaeus monodon (Penoeid shrimp).
OS
     Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC
     Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
OC
     Penaeidae; Penaeus.
OX
     NCBI TaxID=6687;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Eyestalk;
     MEDLINE=21956277; PubMed=11959015;
RX
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
RA
RA
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
     of the giant tiger prawn Penaeus monodon.";
RT
     Comp. Biochem. Physiol. 131B:325-337(2002).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
```

```
CC
    -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
         family.
DR
     GO; GO:0007218; P:neuropeptide signaling pathway; TAS.
    Neuropeptide; Amidation.
KW
    MOD RES
                  11
                                  AMIDATION.
FT
                         11
     SEQUENCE
                11 AA; 1301 MW; 9A19C860072DC771 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                                               0;
            1; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
            9 D 9
Qу
              1
            1 D 1
Db
RESULT 33
FAR9 CALVO
                    STANDARD;
                                    PRT:
                                            11 AA.
     FAR9 CALVO
ID
AC
     P41864;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
DT
DT
DE
     CalliFMRFamide 9.
OS
     Calliphora vomitoria (Blue blowfly).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
OC
     Calliphoridae; Calliphora.
OX
     NCBI TaxID=27454;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Thoracic ganglion;
RX
    MEDLINE=92196111; PubMed=1549595;
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA
RA
     Rehfeld J.F., Thorpe A.;
RT
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
     neuropeptides (designated calliFMRFamides) from the blowfly
RT
RT
     Calliphora vomitoria.";
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
         family.
CC
     PIR; I41978; I41978.
DR
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1359 MW; 8160CE46CAA44321 CRC64;
SQ
     SEQUENCE
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
             1; Conservative 0; Mismatches 0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches
Qу
            2 K 2
Db
            5 K 5
RESULT 34
```

RESULT 34 HS70 PINPS

```
ID
     HS70 PINPS
                                   PRT;
                    STANDARD;
     P81672;
AC
DT
     15-JUL-1999 (Rel. 38, Created)
     15-JUL-1999 (Rel. 38, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Heat shock 70 kDa protein (Fragment).
DE
     Pinus pinaster (Maritime pine).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OC
     NCBI TaxID=71647;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Needle;
     MEDLINE=99274088; PubMed=10344291;
RX
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA
     Frigerio J.-M., Plomion C.;
RA
     "Separation and characterization of needle and xylem maritime pine
RT
     proteins.";
RT
     Electrophoresis 20:1098-1108(1999).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
     ATP-binding; Heat shock; Multigene family.
KW
     NON TER
                   1
                          1
FT
                  11
     NON TER
                         11
FT
                        1228 MW; 037C1BE8DAA44DD0 CRC64;
SQ
     SEQUENCE
                11 AA;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                    0;
                                                                               0;
  Matches
             1; Conservative
                               0; Mismatches
                                                        Indels
                                                                  0; Gaps
            4 E 4
Qу
            2 E 2
Db
RESULT 35
LADD ONCMY
ΙD
     LADD ONCMY
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P81018;
DT
     01-NOV-1997 (Rel. 35, Created)
DT
     01-NOV-1997 (Rel. 35, Last sequence update)
DT
     15-DEC-1998 (Rel. 37, Last annotation update)
DE
     Ladderlectin (Fragment).
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
RΡ
     SEQUENCE.
RC
     TISSUE=Blood;
RX
     MEDLINE=97293418; PubMed=9149391;
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RA
RT
     "A rainbow trout lectin with multimeric structure.";
     Comp. Biochem. Physiol. 116B:385-390(1997).
RL
CC
     -!- FUNCTION: Lectin that binds sepharose.
```

11 AA.

```
-!- SUBUNIT: Multimeric.
CC
    Lectin; Calcium.
KW
    NON TER
FT
                       11
    SEQUENCE 11 AA; 1163 MW; 0B26227FF6D45404 CRC64;
SO
                         9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.2e+04;
           1; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                       0;
          1 A 1
Qу
           1 A 1
Db
RESULT 36
LPW THETH
                  STANDARD;
                                PRT:
                                       11 AA.
ID LPW THETH
AC
    P05624;
    01-NOV-1988 (Rel. 09, Created)
DT
    01-NOV-1988 (Rel. 09, Last sequence update)
DT
    30-MAY-2000 (Rel. 39, Last annotation update)
DT
    Trp operon leader peptide.
DE
    TRPL.
GN
OS
    Thermus thermophilus.
OC
    Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
    Thermus.
OX
    NCBI TaxID=274;
RN
    [1]
RP
    SEQUENCE FROM N.A.
    STRAIN=HB8 / ATCC 27634;
RC
    MEDLINE=89000781; PubMed=2844259;
RX
    Sato S., Nakada Y., Kanaya S., Tanaka T.;
RA
    "Molecular cloning and nucleotide sequence of Thermus thermophilus
RT
    HB8 trpE and trpG.";
RT
    Biochim. Biophys. Acta 950:303-312(1988).
RL
    -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
CC
CC
        OF TRYPTOPHAN.
CC
    _____
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
CC
    modified and this statement is not removed. Usage by and for commercial
CC
CC
    entities requires a license agreement (See http://www.isb-sib.ch/announce/
    or send an email to license@isb-sib.ch).
CC
CC
    EMBL; X07744; CAA30565.1; -.
DR
    Tryptophan biosynthesis; Leader peptide.
KW
    SEQUENCE 11 AA; 1228 MW; 364B295A772DC5A7 CRC64;
SO
                         9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.2e+04;
           1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           1 A 1
Qу
             ı
```

-!- COFACTOR: Calcium is essential for sepharose binding.

```
RESULT 37
LSK1 LEUMA
     LSK1 LEUMA
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P04428;
AC
DT
     13-AUG-1987 (Rel. 05, Created)
     13-AUG-1987 (Rel. 05, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Leucosulfakinin-I (LSK-I).
DE
     Leucophaea maderae (Madeira cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
OC
     NCBI TaxID=6988;
OX
RN
     [1]
     SEOUENCE.
RP
     MEDLINE=86315858; PubMed=3749893;
RX
     Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
RA
     "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
RT
     gastrin and cholecystokinin.";
RL
     Science 234:71-73(1986).
     -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
         the hingut. Inhibits muscle contraction of hindgut.
CC
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR
     PIR; A01622; GMROL.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
KW
     Hormone; Amidation; Sulfation.
FT
     MOD RES
                   6
                           6
                                   SULFATION.
FT
     MOD RES
                  11
                         11
                                   AMIDATION.
SQ
     SEQUENCE
                11 AA; 1459 MW; 7E4E0680E86B5AAB CRC64;
  Query Match
                            9.1%;
                                  Score 1;
                                             DB 1;
                                                    Length 11;
  Best Local Similarity
                           100.0%; Pred. No. 9.2e+04;
                                                                                0;
  Matches
             1; Conservative
                                  0; Mismatches
                                                     0; Indels
                                                                   0;
                                                                       Gaps
Qy
            4 E 4
Db
            1 E 1
RESULT 38
LSKP PERAM
     LSKP PERAM
                                    PRT:
                                            11 AA.
ID
                    STANDARD;
AC
     P36885;
DT
     01-JUN-1994 (Rel. 29, Created)
     01-JUN-1994 (Rel. 29, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
     Perisulfakinin (Pea-SK-I).
DE
OS
     Periplaneta americana (American cockroach).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
```

```
RP
    SEOUENCE.
RC
    TISSUE=Corpora cardiaca;
RX
    MEDLINE=90137190; PubMed=2615921;
RA
    Veenstra J.A.;
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
RT
     the American cockroach homologous to the leucosulfakinins.";
RT
    Neuropeptides 14:145-149(1989).
RL
    -!- FUNCTION: Stimulates hindgut contractions.
CC
    -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
DR
    PIR; A60656; A60656.
    InterPro; IPR001651; Gastrin.
DR
    PROSITE; PS00259; GASTRIN; 1.
DR
    Hormone; Amidation; Sulfation.
KW
FT
    MOD RES
                   6
                          6
                                  SULFATION.
    MOD RES
                                  AMIDATION.
FT
                  11
                         11
     SEQUENCE
                11 AA; 1445 MW; 8B4E0680E86B5AAA CRC64;
SO
 Query Match
                           9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 9.2e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0:
 Matches
Qу
            4 E 4
              -1
Dh
            1 E 1
RESULT 39
MHBI KLEPN
    MHBI KLEPN
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
     P80580;
AC
     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
DT
DT
     01-NOV-1997 (Rel. 35, Last annotation update)
DT
    Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
DE
GN
    MHBI.
OS
     Klebsiella pneumoniae.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Klebsiella.
OC
OX
    NCBI TaxID=573;
RN
     [1]
RP
     SEQUENCE.
    MEDLINE=96349117; PubMed=8760924;
RX
     Robson N.D., Parrott S., Cooper R.A.;
RA
RT
     "In vitro formation of a catabolic plasmid carrying Klebsiella
     pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
     hydroxybenzoate.";
RT
    Microbiology 142:2115-2120(1996).
RL
CC
     -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
KW
     Isomerase.
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1387 MW; 1EE0E2DD49C9D5AB CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
```

```
Db 2 K 2
```

```
RESULT 40
MLG THETS
                                    PRT;
                                            11 AA.
     MLG THETS
                    STANDARD;
ID
     P41989;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
DE
     Theromyzon tessulatum (Leech).
OS
     Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
     Rhynchobdellida; Glossiphoniidae; Theromyzon.
OC
     NCBI TaxID=13286;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=94298944; PubMed=8026574;
RX
     Salzet M., Wattez C., Bulet P., Malecha J.;
RA
     "Isolation and structural characterization of a novel peptide related
RT
     to gamma-melanocyte stimulating hormone from the brain of the leech
RT
     Theromyzon tessulatum.";
RT
     FEBS Lett. 348:102-106(1994).
RL
     -!- SIMILARITY: Belongs to the POMC family.
CC
     PIR; S45698; S45698.
DR
     Hormone; Amidation.
KW
                                   AMIDATION.
     MOD RES
                          11
\mathbf{FT}
                  11
                                   2DB8FACE6409C1E8 CRC64;
                11 AA; 1486 MW;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                  0; Mismatches
                                                         Indels
                                                                   0;
                                                                       Gaps
                                                                                0;
             1; Conservative
                                                     0;
  Matches
            2 K 2
Qу
               1
           10 K 10
Db
RESULT 41
MORN HUMAN
                                            11 AA.
     MORN HUMAN
                     STANDARD;
                                    PRT;
AC
     P01163;
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Morphogenetic neuropeptide (Head activator) (HA).
DE
     Homo sapiens (Human),
OS
OS
     Rattus norvegicus (Rat),
OS
     Bos taurus (Bovine),
     Anthopleura elegantissima (Sea anemone), and
OS
     Hydra attenuata (Hydra) (Hydra vulgaris).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
OX
RN
     [1]
```

```
SPECIES=Human, Rat, and Bovine;
RC
RX
     MEDLINE=82035850; PubMed=7290191;
     Bodenmuller H., Schaller H.C.;
RA
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
     from coelenterates to humans.";
RT
     Nature 293:579-580(1981).
RL
     [2]
RN
     SEQUENCE.
RP
     SPECIES=A.elegantissima, and H.attenuata;
RC
     Schaller H.C., Bodenmuller H.;
RA
     "Isolation and amino acid sequence of a morphogenetic peptide from
RT
     hydra.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
     SYNTHESIS.
RP
    MEDLINE=82050803; PubMed=7297679;
RX
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
     "Synthesis of a new neuropeptide, the head activator from hydra.";
RT
RL
     FEBS Lett. 131:317-321(1981).
RN
     [4]
RP
     FUNCTION.
RX
     MEDLINE=90059923; PubMed=2583101;
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RA
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
RT
     in the G2/mitosis transition.";
RT
RL
     EMBO J. 8:3311-3318(1989).
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
CC
CC
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
         and was called head activator by the authors, because it induced
CC
         head-specific growth and differentiation in this animal. It has
CC
         been found in mammalian intestine and hypothalamus.
CC
     PIR; A01427; YHRT.
DR
DR
     PIR; A93900; YHXAE.
DR
     PIR; B01427; YHHU.
     PIR; B93900; YHJFHY.
DR
     PIR; C01427; YHBO.
DR
DR
     GK; P01163; -.
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                         1
     SEQUENCE
                11 AA; 1142 MW; 37927417C325B878 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Ouery Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                                              0;
             1; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
Qy
            6 Q 6
Db
            1 Q 1
RESULT 42
NUHM CANFA
                                   PRT;
                                           11 AA.
ID
     NUHM CANFA
                    STANDARD;
     P49820;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
```

RP

SEQUENCE.

```
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DE
     (EC 1.6.99.3) (Fragment).
     NDUFV2.
GN
     Canis familiaris (Dog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
     NCBI TaxID=9615;
OX
RN
     [1]
     SEQUENCE.
RΡ
RC
     TISSUE=Heart;
    MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RT
     Electrophoresis 18:2795-2802(1997).
RL
     -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
CC
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
CC
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
CC
         FRAGMENT OF THE ENZYME.
     -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
CC
CC
     -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
CC
     -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
     -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
CC
         mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
     HSC-2DPAGE; P49820; DOG.
DR
     InterPro; IPR002023; Cmplx1 24kDa.
DR
     PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
DR
KW
     Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
     Iron-sulfur; Iron; 2Fe-2S.
     NON TER
                  11
FT
                         11
SQ
     SEQUENCE
                11 AA; 1099 MW; 267F5369C9C72DD8 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
                                                    0; Indels
Qу
            1 A 1
            2 A 2
Db
RESULT 43
OAIF SARBU
     OAIF SARBU
ID
                    STANDARD;
                                   PRT;
                                            11 AA.
     P83518;
AC
DT
     10-OCT-2003 (Rel. 42, Created)
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
DE
     ODAIF(1-9); Neb-ODAIF(1-7)].
DΕ
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
```

```
OX
     NCBI TaxID=7385;
RN
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Ovary;
     MEDLINE=22272747; PubMed=12383874;
RX
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
RA
     De Loof A., Huybrechts R.;
     "Isolation and characterization of an angiotensin converting enzyme
RT
     substrate from vitellogenic ovaries of Neobellieria bullata.";
RT
     Peptides 23:1853-1863(2002).
RL
     -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
         vitro.
     -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
         terminal dipeptides.
CC
     -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
     -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
CC
                         11
                                  NEB-ODAIF.
FT
     PEPTIDE
                   1
                   1
                          9
                                  NEB-ODAIF(1-9).
FT
     PEPTIDE
                          7
                                  NEB-ODAIF(1-7).
FT
     PEPTIDE
                   1
                                  4E114BB566C5A763 CRC64;
                11 AA; 1314 MW;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
            2 K 2
Qу
              -
Dh
            2 K 2
RESULT 44
PVK1 PERAM
                                   PRT;
     PVK1 PERAM
                    STANDARD;
                                            11 AA.
ID
AC
     P41837;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Periviscerokinin-1 (Pea-PVK-1).
DΕ
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
     TISSUE=Abdominal perisympathetic organs;
RC
     MEDLINE=95232021; PubMed=7716075;
RX
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
RA
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
RT
     perisympathetic organs of the American cockroach.";
RT
RL
     Peptides 16:61-66(1995).
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
CC
CC
         HYPERNEURAL MUSCLE.
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                         11
                                  AMIDATION.
                  11
     SEQUENCE
                11 AA; 1114 MW; 39DB5419D7605728 CRC64;
SQ
```

OC

Sarcophagidae; Sarcophaga.

```
Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                               0; Mismatches
             1; Conservative
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            1 A 1
Qу
Db
            2 A 2
RESULT 45
RANC RANPI
     RANC RANPI
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     P08951;
AC
     01-NOV-1988 (Rel. 09, Created)
DΤ
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Ranatensin-C.
     Rana pipiens (Northern leopard frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8404;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=84131098; PubMed=6141890;
RA
     Nakajima T.;
RL
     Unpublished results, cited by:
RL
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
RL
     Comp. Biochem. Physiol. 77C:99-108(1984).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
CC
CC
         family.
     InterPro; IPR000874; Bombesin.
DR
DR
     Pfam; PF02044; Bombesin; 1.
     PROSITE; PS00257; BOMBESIN; 1.
DR
KW
     Amphibian defense peptide; Bombesin family; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
                11 AA; 1304 MW;
SQ
                                 D6C9885A61ADC366 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
  Matches
             1; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
           10 T 10
Qy
            2 T 2
Db
RESULT 46
RE41 LITRU
ID
     RE41 LITRU
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P82074;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
```

```
Rubellidin 4.1.
DE
     Litoria rubella (Desert tree frog).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=104895;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA
     Tyler M.J., Wallace J.C.;
RA
     "The structure of new peptides from the Australin red tree frog
RT
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
     of evolutionary trends of amphibians.";
RT
RL
     Aust. J. Chem. 49:955-963(1996).
    -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC
CC
         activity.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
CC
     Amphibian defense peptide; Amidation.
KW
     MOD RES
                  11
                        11
                                  AMIDATION.
FT
     SEQUENCE
               11 AA; 1040 MW; 84ED5CBC2877205A CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
 Matches
           1; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            9 D 9
Qу
             4 D 4
Db
RESULT 47
RR2 CONAM
     RR2 CONAM
                    STANDARD;
                                   PRT;
                                           11 AA.
     P42341;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Chloroplast 30S ribosomal protein S2 (Fragment).
GN
     RPS2.
     Conopholis americana (Squawroot).
OS
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
OC
     NCBI TaxID=4179;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=92145776; PubMed=1723664;
RX
     Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
RA
     "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
RT
     of photosynthesis in a lineage of parasitic plants.";
     Curr. Genet. 20:515-518(1991).
RL
CC
     -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
CC
```

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     between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     entities requires a license agreement (See http://www.isb-sib.ch/announce/
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     or send an email to license@isb-sib.ch).
CC
     _______
CC
    EMBL; X64567; CAA45868.1; -.
DR
     PIR; $32575; $32575.
DR
     HAMAP; MF 00291; -; 1.
DR
    InterPro; IPR001865; Ribosomal S2.
DR
    PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
DR
    PROSITE; PS00963; RIBOSOMAL S2 2; PARTIAL.
DR
     Ribosomal protein; Chloroplast.
KW
FT
     NON TER
                  11
                        11
     SEQUENCE
               11 AA; 1497 MW; 76CD719954536B44 CRC64;
SQ
  Query Match
                          9.1%; Score 1; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 9.2e+04;
 Matches
           1; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                             0;
Qy
            4 E 4
              -1
           11 E 11
Db
RESULT 48
RRPL CHAV
     RRPL CHAV
                    STANDARD;
                                   PRT;
                                          11 AA.
TD
AC
     P13179;
     01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DE
DE
     (L protein) (Fragment).
GN
     L.
OS
     Chandipura virus (strain I653514).
     Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
     Rhabdoviridae; Vesiculovirus.
OC
OX
     NCBI TaxID=11273;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=89299473; PubMed=2741347;
RX
     Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
     Banerjee A.K.;
RA
     "Structure and expression of the glycoprotein gene of Chandipura
RT
RT
     virus.";
     Virology 171:285-290(1989).
RL
     -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
         POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
         METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
CC
     -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
CC
         {RNA}(N).
     -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
CC
         NUCLEOCAPSID (N) PROTEIN.
     -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
```

```
CC
        PARAMYXOVIRUSES.
CC
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    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    or send an email to license@isb-sib.ch).
CC
    _____
CC
    EMBL; J04350; AAA42917.1; -.
DR
    Transferase; RNA-directed RNA polymerase.
KW
FT
    NON TER 11
                      11
    SEQUENCE 11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
SO
                        9.1%; Score 1; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 9.2e+04;
 Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                        0;
           9 D 9
Qу
           2 D 2
Db
RESULT 49
RS30 ONCMY
    RS30 ONCMY
                 STANDARD;
                               PRT;
                                        11 AA.
ID
AC
    P83328;
DT
    28-FEB-2003 (Rel. 41, Created)
    28-FEB-2003 (Rel. 41, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    40S ribosomal protein S30 (Fragment).
DE
GN
    FAU.
    Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
OX
    NCBI TaxID=8022;
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin mucus;
RC
    MEDLINE=22142142; PubMed=12147245;
RX
     Fernandes J.M.O., Smith V.J.;
RA
     "A novel antimicrobial function for a ribosomal peptide from rainbow
RT
RT
     trout skin.";
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
RL
    -!- FUNCTION: Has antibacterial activity against Gram-positive
CC
CC
        bacteria.
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
CC
    -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
     Ribosomal protein; Antibiotic.
KW
FT
     NON TER
                11
                       11
     SEQUENCE 11 AA; 1123 MW; 2312AB630DD735B8 CRC64;
SQ
                         9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
  Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
```

```
2 K 2
Qy
            Db
           1 K 1
RESULT 50
T2P1 PROVU
    T2P1 PROVU
                  STANDARD;
                                PRT;
                                       11 AA.
AC
    P31031;
    01-JUL-1993 (Rel. 26, Created)
DT
    01-JUL-1993 (Rel. 26, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
    (R.PvuI) (Fragment).
DE
    PVUIR.
GN
    Proteus vulgaris.
OS
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Proteus.
OC
OX
    NCBI TaxID=585;
RN
    [1]
    SEQUENCE FROM N.A.
RP
RC
    STRAIN=ATCC 13315;
RX
    MEDLINE=93087186; PubMed=1454536;
RA
    Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
    "Cloning and characterization of genes for the PvuI restriction and
RT
RT
    modification system.";
RL
    Nucleic Acids Res. 20:5743-5747(1992).
CC
    -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
        CLEAVES AFTER T-4.
CC
    -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
CC
        specific double-stranded fragments with terminal 5'-phosphates.
       _____
CC
CC
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    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC
    or send an email to license@isb-sib.ch).
CC
    ______
    EMBL; L04163; AAA25660.1; -.
DR
DR
    PIR; $35490; $35490.
DR
    REBASE; 1541; PvuI.
    Restriction system; Hydrolase; Nuclease; Endonuclease.
KW
FT
    NON TER 1
                       - 1
    SEQUENCE 11 AA; 1300 MW; 9F0CDE7955B72B1A CRC64;
SQ
 Query Match
                        9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
           1; Conservative 0; Mismatches 0; Indels
 Matches
                                                            0; Gaps
                                                                       0;
Qу
           9 D 9
```

4 D 4

Db

```
RESULT 51
TIN1 HOPTI
ID
     TIN1 HOPTI
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82651;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DE
     Tigerinin-1.
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
     NCBI TaxID=103373;
OX
RN
RP
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
     TISSUE=Skin secretion;
     PubMed=11031261;
RX
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
KW
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
FT
     DISULFID
                   2
                         10
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1344 MW; A2087DC960476056 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
  Matches
            1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 R 5
Qу
            9 R 9
Db
RESULT 52
TIN4 HOPTI
     TIN4 HOPTI
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
     P82654;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Tigerinin-4.
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
oc
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
RP
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
     TISSUE=Skin secretion;
```

```
RX
     PubMed=11031261;
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RT
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
CC
KW
     Amphibian defense peptide; Antibiotic.
                         11
FT
     DISULFID
                   3
SO
     SEQUENCE
                11 AA; 1248 MW; 117D8EFD37605DCB CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
            1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
            5 R 5
Qу
Db
            1 R 1
RESULT 53
TKC2 CALVO
     TKC2 CALVO
                    STANDARD;
                                    PRT:
                                            11 AA.
ID
AC
     P41518;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DΕ
     Callitachykinin II.
OS
     Calliphora vomitoria (Blue blowfly).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OX
     NCBI TaxID=27454;
RN
RP
     SEQUENCE, AND SYNTHESIS.
RX
     MEDLINE=95075727; PubMed=7984492;
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
RA
     Naessel D.R.;
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
RT
     tachykinins.";
RL
     Peptides 15:761-768(1994).
CC
     -!- FUNCTION: Myoactive peptide.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1103 MW; 15D7E3F9C9CDD444 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
  Matches
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
```

```
6 A 6
Db
RESULT 54
TKN1 PSEGU
    TKN1 PSEGU
                                   PRT;
                                           11 AA.
ID
                    STANDARD;
     P42986;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Kassinin-like peptide K-I (PG-KI).
DΕ
     Pseudophryne quentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
    Myobatrachinae; Pseudophryne.
    NCBI TaxID=30349;
OX
RN
     [1]
RP
    SEQUENCE.
RC
    TISSUE=Skin secretion;
    MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; B60409; B60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1269 MW; 3DBA7C37C9CB1AB7 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
             1; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                              0;
  Matches
Qy
            6 Q 6
Db
            1 Q 1
```

RESULT 55 TKN1 UPEIN 1 A 1

Qу

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TKN1 UPEIN
ID
                    STANDARD;
                                    PRT:
                                            11 AA.
     P82026;
AC
DT
     30-MAY-2000 (Rel. 39, Created)
     30-MAY-2000 (Rel. 39, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperin 1.1.
     Uperoleia inundata (Floodplain toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OC
OX
     NCBI TaxID=104953;
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Skin secretion;
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
RA
     Adams G.W., Severini C.;
     "Novel uperin peptides from the dorsal glands of the australian
RT
     floodplain toadlet Uperoleia inundata.";
RT
     Aust. J. Chem. 49:475-484(1996).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
CC
     -!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
                         11
FT
     MOD RES
                  11
                                  AMIDATION.
                11 AA; 1226 MW;
SQ
     SEQUENCE
                                  3293693E59CDD457 CRC64;
                                   Score 1; DB 1; Length 11;
  Query Match
                           9.1%;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                                  0; Gaps
  Matches
             1; Conservative
                                                    0; Indels
Qу
            6 Q 6
            1 Q 1
Db
RESULT 56
TKN1 UPERU
     TKN1 UPERU
                                            11 AA.
ID
                    STANDARD;
                                    PRT;
     P08612;
AC
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Uperolein.
     Uperoleia rugosa (Wrinkled toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
```

```
NCBI TaxID=8368;
OX
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=75131227; PubMed=1120493;
RA
     Anastasi A., Erspamer V., Endean R.;
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RL
     Experientia 31:394-395(1975).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
     MOD RES
                   1
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
                          1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA;
                        1252 MW; 32867C3E59CDD457 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
  Matches
             1; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            6 Q 6
Qу
Db
            1 Q 1
RESULT 57
TKN2 PSEGU
     TKN2 PSEGU
ID
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P42987;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Kassinin-like peptide K-II (PG-KII).
os
     Pseudophryne guentheri (Guenther's toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
```

```
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; C60409; C60409.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
    MOD RES
FT
                                  PYRROLIDONE CARBOXYLIC ACID.
                  1
                          1
    MOD RES
                  11
                         11
FT
                                  AMIDATION.
     SEQUENCE
                11 AA; 1246 MW;
                                  3A247C37C9CB1AB7 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
 Matches
             1; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            6 Q 6
Qy
Db
            1 Q 1
RESULT 58
TKN2 UPERU
    TKN2 UPERU
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P08616;
DT
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Rugosauperolein II ([Lys5,Thr6]physalaemin).
DE
OS
     Uperoleia rugosa (Wrinkled toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
    Myobatrachinae; Uperoleia.
OX
    NCBI TaxID=8368;
RN
    [1]
RP
     SEQUENCE.
    TISSUE=Skin secretion;
RC
RX
    MEDLINE=80223080; PubMed=7389029;
    Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
RA
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
RT
     Australian leptodactylid frog Uperoleia rugosa.";
RL
     Chem. Pharm. Bull. 28:689-695(1980).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
```

```
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1270 MW;
                                  3293693E59D1A327 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
  Matches
            1; Conservative 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            6 Q 6
Qу
Db
            1 Q 1
RESULT 59
TKN3 PSEGU
ID
     TKN3 PSEGU
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P42988;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Kassinin-like peptide K-III (PG-KIII).
OS
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; D60409; D60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
```

```
SO
     SEOUENCE
                11 AA; 1268 MW;
                                  3DBA7C37C9CB1457 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
             1; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                      Gaps
            6 Q 6
Qy
Db
            1 Q 1
RESULT 60
TKN4 PSEGU
     TKN4 PSEGU
                    STANDARD;
                                    PRT:
                                            11 AA.
ID
     P42989;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Substance P-like peptide I (PG-SPI).
DE
OS
     Pseudophryne quentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI_TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; E60409; E60409.
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                  11
                         11
FT
                                   AMIDATION.
     SEQUENCE
                11 AA; 1294 MW;
                                  3A247C2CC9CB1AB7 CRC64;
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9.2e+04;
                                                                  0; Gaps
             1; Conservative
                                                                               0:
  Matches
                                 0; Mismatches
                                                    0; Indels
```

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Db 1 Q 1
```

TKNA CHICK

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RESULT 61
TKN5 PSEGU
ID
     TKN5 PSEGU
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P42990;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
     Substance P-like peptide II (PG-SPII).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
    Myobatrachinae; Pseudophryne.
OC
    NCBI TaxID=30349;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
    MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA-
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
    PIR; F60409; F60409.
DR
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
                  11
                         11
FT
    MOD RES
                                  AMIDATION.
     SEQUENCE
                11 AA; 1293 MW; 3A247C2CC9CB1457 CRC64;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                               0;
 Matches
             1; Conservative
            6 Q 6
Qу
Db
            1 Q 1
RESULT 62
TKNA CHICK
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PRT;

11 AA.

STANDARD;

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P19850;
AC
     01-FEB-1991 (Rel. 17, Created)
DT
     01-FEB-1991 (Rel. 17, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     Gallus gallus (Chicken).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
     NCBI TaxID=9031;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Intestine;
RC
     MEDLINE=88204263; PubMed=2452461;
RX
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RA
     "[Arg3]substance P and neurokinin A from chicken small intestine.";
RT
     Regul. Pept. 20:171-180(1988).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; JN0023; JN0023.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
     MOD RES
                         11
                                  AMIDATION.
FT
                  11
                        1377 MW; 21487FE3C9D6C6C7 CRC64;
     SEQUENCE
                11 AA;
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                                               0;
                               0; Mismatches 0;
                                                       Indels
                                                                  0; Gaps
            1; Conservative
  Matches
            5 R 5
Qу
              1
            1 R 1
Db
RESULT 63
TKNA GADMO
                                    PRT;
                                            11 AA.
     TKNA GADMO
                    STANDARD;
AC
     P28498;
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
OS
     Gadus morhua (Atlantic cod).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OC
     NCBI_TaxID=8049;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=92298992; PubMed=1376687;
RX
```

```
RA
     Jensen J., Conlon J.M.;
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
RT
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S23306; S23306.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
ĎR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION (BY SIMILARITY).
FT
     MOD RES
                  11
                         11
     SEQUENCE
                11 AA; 1315 MW;
                                  214860D759D6C6C7 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9.2e+04;
                                                                              0;
             1; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
            2 K 2
Qу
              1
Db
            1 K 1
RESULT 64
TKNA HORSE
ID
     TKNA HORSE
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P01290;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
     TAC1 OR NKNA OR TAC2 OR NKA.
GN
OS
     Equus caballus (Horse), and
OS
     Cavia porcellus (Guinea pig).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OC
     NCBI TaxID=9796, 10141;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     SPECIES=Horse;
     Studer R.O., Trzeciak A., Lergier W.;
RA
     "Isolation and amino-acid sequence of substance P from horse
RT
RT
     intestine.";
     Helv. Chim. Acta 56:860-866(1973).
RL
RN
RΡ
     SEQUENCE.
RC
     SPECIES=C.porcellus;
     MEDLINE=90044685; PubMed=2478925;
RX
RA
     "Primary amino acid sequence of guinea-pig substance P.";
RT
     Neuropeptides 14:105-110(1989).
RL
```

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CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; A01558; SPHO.
DR
     PIR; A60654; A60654.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION.
FT
                  11
                         11
                       1349 MW; 3E757FE3C9D6C6C7 CRC64;
     SEOUENCE
              11 AA;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9.2e+04;
  Best Local Similarity
                                                                  0; Gaps
  Matches
            1; Conservative
                                 0; Mismatches
                                                 0: Indels
            5 R 5
Qу
             - 1
Db
            1 R 1
RESULT 65
TKNA ONCMY
     TKNA ONCMY
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
AC
     P28499;
DT
     01-DEC-1992 (Rel. 24, Created)
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Substance P.
OS
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
     MEDLINE=92298992; PubMed=1376687;
RX
RA
     Jensen J., Conlon J.M.;
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
RT
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S23308; S23308.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
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SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
                         11
                                  AMIDATION (BY SIMILARITY).
SO
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Qу
Db
            1 K 1
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TKNA RANCA
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AC
     P22688;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin A (RTK A).
DE
OS
     Rana catesbeiana (Bull frog).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8400;
OX
RN
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     SEQUENCE, AND SYNTHESIS.
RP
     TISSUE=Brain, and Intestine;
RC
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
RT
     brain and intestine.";
RL
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
RT
     intestine.";
RL
     Regul. Pept. 46:81-88(1993).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; A61033; A61033.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation.
KW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
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DR

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11 AA; 1311 MW; 200D60CC59D40AB7 CRC64;
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                          100.0%; Pred. No. 9.2e+04;
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Qу
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Db
            1 K 1
RESULT 67
TKNA SCYCA
ID
     TKNA SCYCA
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                                   PRT;
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AC
     P41333;
DT
     01-FEB-1995 (Rel. 31, Created)
     01-FEB-1995 (Rel. 31, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Substance P.
OS
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
OC
     Scyliorhinidae; Scyliorhinus.
OX
    NCBI TaxID=7830;
RN
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RP
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RC
    TISSUE=Brain:
    MEDLINE=93292508; PubMed=7685693;
RX
    Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RA
     "Primary structures and biological activities of substance-P-related
RT
RT
    peptides from the brain of the dogfish, Scyliorhinus canicula.";
    Eur. J. Biochem. 214:469-474(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
        muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
    -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S33300; S33300.
DR
    InterPro; IPR002040; Tachy Neurokinin.
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
    Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
    MOD RES
                  11
                        11
                                  AMIDATION.
SQ
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Qy
              -
            1 K 1
Db
RESULT 68
TKN PHYFU
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ID
    TKN PHYFU
                    STANDARD;
                                   PRT;
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SQ

SEOUENCE

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AC
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DT
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DT
     01-FEB-1994 (Rel. 28, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Physalaemin.
     Physalaemus fuscumaculatus (Neotropical frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
     Leptodactylinae; Physalaemus.
OC
     NCBI TaxID=8378;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=66076612; PubMed=5857249;
RX
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RA
     "Structure and pharmacological actions of physalaemin, the main
RT
     active polypeptide of the skin of Physalaemus fuscumaculatus.";
RT
     Experientia 20:489-490(1964).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; S07201; S07201.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
     MOD RES
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                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
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                         11
                                   AMIDATION.
FT
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                                   3293693E59C33457 CRC64;
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                                   Score 1; DB 1; Length 11;
  Best Local Similarity
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                                   Pred. No. 9.2e+04;
  Matches
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                                                    0; Indels
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                                                                       Gaps
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Qу
Db
            1 Q 1
RESULT 69
UF05 MOUSE
     UF05 MOUSE
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                                    PRT;
                                            11 AA.
ID
AC
     P38643;
     01-OCT-1994 (Rel. 30, Created)
DT
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
DE
OS
     Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
OX
     NCBI TaxID=10090;
RN
     [1]
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RP
    SEQUENCE.
    TISSUE=Fibroblast;
RC
RX
    MEDLINE=95009907; PubMed=7523108;
    Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RA
     "Separation and sequencing of familiar and novel murine proteins
RT
     using preparative two-dimensional gel electrophoresis.";
RT
     Electrophoresis 15:735-745(1994).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 48 kDa.
CC
FT
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                  11
                         11
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SQ
     SEQUENCE
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 Query Match
                          100.0%; Pred. No. 9.2e+04;
 Best Local Similarity
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                                                                              0;
             1: Conservative
                              0; Mismatches 0;
                                                      Indels
            2 K 2
Qу
             - 1
            1 K 1
Db
RESULT 70
ULAG HUMAN
     ULAG HUMAN
                                           11 AA.
ID
                    STANDARD:
                                   PRT:
AC
     P31933;
DT
     01-JUL-1993 (Rel. 26, Created)
DT
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
DE
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
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RC
     TISSUE=Liver;
     MEDLINE=94147969; PubMed=8313870;
RX
     Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
     Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
RA
     "Human liver protein map: update 1993.";
RT
RL
     Electrophoresis 14:1216-1222(1993).
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
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CC
DR
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     Siena-2DPAGE; P31933; -.
DR
     NON TER
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FT
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     SEQUENCE
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SQ
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  Best Local Similarity
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                                 0; Mismatches 0; Indels
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  Matches
             1; Conservative
Qу
            6 Q 6
            3 Q 3
Db
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